

REPUBLIC OF YEMEN

YEMEN FOOD SECURITY RESPONSE AND RESILIENCE PROJECT (P176129)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Collectively Prepared by:

Food and Agriculture Organization of the United Nations (FAO); United Nations Development Program (UNDP); World Food Programme (WFP); 18 December 2021

ABBREVIATIONS

	As the first the sector of the Decision of Assiling
AIDA	Agricultural Investment for Development Analyzer
ARDU	Agriculture and Rural Development Unit
CAHWs	Community Animal Health Workers
СВО	Community-based Organization
CBY	Central Bank of Yemen
CCRT	Catastrophe Containment and Relief Trust
CFW	Cash for Work
COC	Codes of Conduct
COVID-19	Coronavirus Disease
CPMU	Central Project Management Unit
CRSA	Climate Risk Screening Assessment
CRW ERF	Crisis Response Window Early Response Facility
DFA	de facto Authorities
ECOP	Environmental Codes of Practice
ECRP	Emergency Crisis Response Project
ESPECRP	Emergency Social Protection Enhanced COVID-19 Response Project
EIA	Environmental Impact Assessment
EO	Earth Observation
E&S	Environment and Social
ESA	Environmental and Social Assessment
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
ESS	Environmental and Social Standards
FA	Financial Agreement
FAO	Food and Agriculture Organization of the United Nations
FCV	Fragility, Conflict, and Violence
FFS	Farmer Field Schools
FIES	Food Insecurity Experience Scale
FMFA	Financial Management Framework Agreement
FSPP	Food Security Preparedness Plan
GAFSP	Global Agriculture and Food Security Program
GAM	Global Acute Malnutrition
GBV	Gender Based Violence
GDP	Gross Domestic Product
GEMS	Geo-Enabling Initiative for Monitoring and Supervision
GHG	Greenhouse Gases
GHI	Global Hunger Index
GIS	Geographical Information Systems
GoY	Government of Yemen
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HDDS	Household Dietary Diversity Score
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association

IDP	Internally Displaced Peoples/Persons
IFC	
	International Finance Corporation
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IPC	Integrated Food Security Phase Classification
IRG	Internationally Recognized Government
LMP	Labor Management Procedures
MAI	Ministry of Agriculture and Irrigation
MAM	Moderate Acute Malnutrition
MFB	Minimum Food Basket
M&E	Monitoring and Evaluation
MIS	Management Information System
NASS	National Agriculture Sector Strategy
NAIP	National Agriculture Investment Plan
NGO	Non-governmental Organization
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PiN	People in Need
PIT	Project Implementation Team
PLW	Pregnant or Lactating Women
PMU	Project Management Unit
POA	Plan of Action
PPE	Personal Protective Equipment
PPMU	Provincial Project Management Unit
PSC	Project Steering Committee
PWP	Public Works Project
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SAM	Severe Acute Malnutrition
SAPREP	Smallholder Agricultural Productivity Restoration and Enhancement Project
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SFD	Social Fund for Development
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SMEPS	Small Micro-Enterprise Promotion Service
ТА	Technical Assistance
TOR	Terms of Reference
TPM	Third Party Monitoring
VAC	Violence against Children
UXO	Unexploded Ordinance
WB	World Bank
WBG	World Bank Group
WDR	World Development Report
WFP	World Food Programme
YHRP	Yemen Humanitarian Response Plan
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I. INTRODUCTION

1.1 Project Overview

- 1. Yemen has for long been classified as a low-income, food-deficit country which produces merely ten percent of its food needs. The protracted conflict has crippled the economy, created an unprecedented humanitarian crisis, which remains the principal driver of food insecurity in Yemen¹. The cumulative contraction in real GDP is estimated to have reached 48.4 percent in 2019, compared to 2014, and the unemployment rate is estimated to have reached 32 percent in 2019². After nearly seven years of conflict, Yemen is currently suffering both chronic and acute deprivation and people are exhausting means of livelihood and consumption coping strategies. In 2020, the overall situation has further deteriorated and the brief gains from a relatively more stable setting in 2019 were shortly reversed. Various elements have contributed to the increasing fragility amongst the majority of the population: (i) suspension of basic public services and civil service salary payments; (ii) rapid depreciation of the currency and the consequential increase in food prices; and (iii) shortages of imported goods; and (iv) the large depletion in external assistance during 2020 which had financed food imports, other necessities, and helped stabilize the economy in 2019. Some respite was provided by the IMF in late spring and summer of 2020. The deteriorating macroeconomic conditions continue to increase prices of basic necessities and reduce access to income for many Yemenis.
- 2. Over 24 million people (or 83 percent of the total estimated population) are food insecure³, including a staggering 16.2 million people in IPC Phase 3+ requiring urgent emergency assistance. Food insecurity in Yemen is driven by constrained food production, supply and distribution and households' diminishing purchasing power. Over 2.25 million children under the age of five in Yemen are threatened to suffer from acute malnutrition in 2021. Of those children, 395,000 are expected to suffer from severe acute malnutrition and could die if treatment is not received. The projected figures of the IPC nutrition analysis⁴ mark a 16 percent increase in acute malnutrition and a 22 percent increase in severe acute malnutrition among children under five compared to last year's estimate. This is the highest number on record in Yemen. In addition, more than one million cases of pregnant and lactating women are projected to suffer from acute malnutrition during 2021 in Yemen.
- 3. Food insecurity is more severe both in areas with active fighting and bordering areas with limited access. It is particularly affecting Internally Displaced Persons (IDPs) and marginalized groups such as the landless laborers and the Mohamasheen⁵. Food insecurity is also severe in areas where people survive on low and irregular sources of income and low access to public services. The population in IPC Phase 5 (Catastrophe) is found in five districts of Al Jawf, Hajjah and Amran. The governorates with the highest

¹ IPC ACUTE FOOD INSECURITY ANALYSIS OCTOBER 2020 – JUNE 2021, Issued December 2020.

² Yemen Socioeconomic Update, Issue 54, November 2020, MOPIC.

³ IPC Phase 2 and above.

⁴ Yemen: High levels of food insecurity persist | IPC Global Platform (ipcinfo.org)

⁵ Mohamasheen or "the marginalized ones" is a minority of African descent who suffer from caste-based discrimination and have long been characterized by deep-seated poverty and exclusion.

proportion of IPC Phase 4 districts (>75%) are located in Al Dhale'e, Al Jawf, Hajjah, Marib and Rayma Governorates. Each of the governorates of Al Hudaydah, Dhamar, Hajjah, Ibb, Sana'a City and Taiz have more than one million people in IPC Phase 3 (Crisis) or above. The upcoming "lean" season, between March and June 2021 is expected to aggravate this situation.

- 4. An estimated 4.3 million people have fled their homes since the start of the conflict, and 3.3 million remain internally displaced. Hunger, food insecurity and malnutrition are among the most pressing and overwhelming challenges Yemen now faces, at a scale that is not being fully met by national authorities and the international development and humanitarian communities. Low food access has resulted from a combination of a high household dependence on food imports, high food prices and significantly reduced household income. It is estimated that Yemen imported 8 percent less wheat per month between January and May 2020 than during the same period in 2019 due to limited funds, which is an insufficient imported amount of wheat to meet the 2020 consumption requirement.
- 5. In response to the above challenges, the Republic of Yemen has designed the Yemen Food Security Response and Resilience Project with a Project Development Objective (PDO) to improve food availability, access, and nutritious diets for households in the project area and to strengthen the country-level resilience to food security crises. Progress towards this objective will be measured via the following outcomes:
 - Outcome 1: Access and availability of food at household level improved. Measured by the percentage of: (i) households with improved Food Insecurity Experience Scale (FIES) ranks and, of those, female-headed households; and (ii) increase in the volume of food/agricultural products which are commercialized/sold by beneficiaries and, of those, by female beneficiaries.
 - Outcome 2: Nutrition improved for vulnerable groups of beneficiaries. Measured by the percentage share of: (i) women in beneficiary households with minimum dietary diversity; and (ii) children (6-23 months) consuming minimum acceptable diet.
 - Outcome 3: Country resilience to food security crises strengthened. Measured by the improvement of food security preparedness through the adoption of the food security preparedness plan and the use of the Earth Observation (EO) monitoring tool
- The project aims to achieve its objective through five components: (1) Improving household incomes through Cash-for-Work (CFW) for agricultural production infrastructure; (2) Increasing production and sale of nutritious crop, livestock, and fish products; (3) Improving the nutritional status of vulnerable rural households; (4) Capacity building for food security management; and (5) Project management and knowledge management. The project will broadly work within the ten governorates of Abyan, Al Bayda, Al Dhale'e, Al Hudaydah, Al Jawf, Amran, Dhamar, Hajjah, Lahj, and Taiz

over the course of five years, with a total project cost of US\$ 127 million (of which US\$ 100 million will be in the form of an IBRD Crisis Response Window (CRW) grant).

1.2 Purpose and Application of the ESMF

- 7. The Food Security Response and Resilience Project consists of numerous subprojects and activities to be further refined during implementation. Based on the inability to confirm specific sub-projects prior to project appraisal, and given the emergency nature of the project, an Environmental and Social Management Framework (ESMF) has been prepared. According to the World Bank's Environmental and Social Standards (ESSs) of the Environmental and Social Framework (ESF), the Borrower must typically prepare and disclose the ESMF⁶ before appraisal. In the instances of emergency projects, such as this one, disclosure of the final ESMF is sometimes postponed to after appraisal to accommodate swifter action, with the caveat that activities for risk-bearing subprojects only commence only once the relevant safeguards instruments are in place.
- 8. The purpose of the ESMF is to ensure that the project has concrete plans and processes in place to avoid, minimize, and/or mitigate the risks and potentially adverse project-related environmental and social (E&S) impacts once the project activities and/or subprojects are identified, planned, and implemented. This living document examines project-related risks and impacts and sets out the principles, rules, guidelines, and procedures to assess any potential risks and impacts of future subproject and activities (including technical assistance (TA)) identified later. It provides measures to reduce, mitigate, and/or offset those adverse risks and impacts from the project, and it also highlights information about areas where subprojects are expected to be located (including any specific E&S-related vulnerabilities of those areas; potential impacts that may occur; and mitigation measures that might be used). Specific objectives of this ESMF are to:
 - Assess the potential environmental and social risks and impacts of the project, both positive and negative, and propose mitigation measures which will effectively address these risks and impacts;
 - Establish clear procedures for the E&S planning, review, approval, and implementation of subprojects, TA, and other activities to be financed under the project;
 - Specify appropriate roles and responsibilities and outline the necessary reporting procedures for managing and monitoring E&S issues/concerns related to subprojects, TA, and activities;
 - Determine the training, capacity building, and technical assistance needed to successfully implement the provisions of this ESMF;
 - Outline and address mechanisms for public consultation and disclosure of project documents, as well as redress of possible grievances; and

⁶ The ESMF examines the risks and impacts when a project consists of a program and/or a series of subprojects, and the risks and impacts cannot be determined until the program or subproject details have been identified.

- **4** Establish the budget requirements for implementation of this ESMF.
- 9. This ESMF provides information on (i) items ineligible for Project funding; (ii) how to conduct the E&S screening; (iii) risks and impacts classifications; (iv) which E&S documents should be prepared and the process to be followed for their preparation (including the clearance process); (v) implementation arrangements; (vi) training and capacity building; (v) grievance redress mechanism; (vi) estimated costs and budget requirements; and (vii) guidelines and specific forms for preparation of the identified E&S documents required. This ESMF will be applied to all subprojects, TA, and other investment activities to be financed by the project.

1.3 Scope of the ESMF

- 10. This ESMF was developed based on a desk review of project-relevant government laws, regulations, ordinances and other legal instruments; various background papers and reports pertaining to environmental and social conditions in the proposed project areas and potential subproject sites; as well as field visits and consultations in those areas. Safeguard documents already prepared for this project (i.e. Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP)) and similar Banksupported projects in Yemen (e.g. Desert Locust Project, Smallholder Agricultural Productivity Restoration and Enhancement Project (SAPREP) were also taken into consideration. Where possible, this ESMF builds upon those prior documents.
- 11. This ESMF follows the requirements of both the FAO Environmental and Social Standards (ESSs) and the World Bank's ESF and ESSs, taking into consideration the related World Bank Directives (e.g. E&S, Disadvantaged or Vulnerable Individuals and Groups) and Good Practice Notes (e.g. Gender Based Violence); related Guidance Notes for Borrowers (on ESSs application, etc.); and relevant Environmental, Health and Safety Guidelines (EHSG). Information is presented in ten sections, as follows:
 - I. Introduction
 - II. Project Description
 - III. Policy, Legal, and Administrative Framework
 - IV. Environmental and Social Assessment and Proposed Mitigation Measures
 - V. Procedures for Review, Clearance, and Implementation of Subproject E&S Instruments
 - VI. Implementation Arrangements
 - VII. Capacity Building, Training, and Technical Assistance
 - VIII. ESMF Implementation Budget
 - IX. Grievance Redress Mechanism (GRM)
 - X. ESMF Consultation and Disclosure
- 12. Annexes provide more details on ineligible activities; E&S screening, risks and impacts classification for subproject and TA activities; actions to address Gender-Based Violence (GBV); and guidelines for preparation of subproject-specific ESMPs. Information on the GRMs for the project is referenced under Chapter IX of this ESMF.

II. PROJECT DESCRIPTION

2.1 Project Objective, Components, Beneficiaries and Area

- 13. The Project Development Objective is to improve the availability of and access to food and nutritious diets, both in the short and medium term, for targeted households in the Project Area, and to enhance Yemen's capacity to respond to food insecurity. PDO Level Indicators include:
 - Outcome 1: Access and availability of food at household level improved. Measured by the percentage of: (i) households with improved Food Insecurity Experience Scale (FIES) ranks and, of those, female-headed households; and (ii) increase in the volume of food/agricultural products which are commercialized/sold by beneficiaries and, of those, by female beneficiaries.
 - Outcome 2: Nutrition improved for vulnerable groups of beneficiaries. Measured by the percentage share of: (i) women in beneficiary households with minimum dietary diversity; and (ii) children (6-23 months) consuming minimum acceptable diet.
 - Outcome 3: Country resilience to food security crises strengthened. Measured by the improvement of food security preparedness through the adoption of the food security preparedness plan and the use of the Earth Observation (EO) monitoring tool.
- 14. The project aims to serve as a scalable platform that offers a combination of complementary short and medium-term instruments to strengthen food security in Yemen, as well as flexibility for adjustment to the evolving food security situation going forward. It will be implemented through five components, as detailed below:

Component 1: Improving household incomes through CFW for agricultural production infrastructure and building climate resilience (US\$20.0 million).

15. UNDP will implement this component through the Social Fund for Development (SFD) and the Public Works Project (PWP). The SFD will take the lead in implementing the CFW program, which will provide employment opportunities directly to beneficiary laborers from the communities in the project area. The PWP will implement small-scale infrastructure-related works through selected locally sourced contractors which are also expected to create employment opportunities for the communities. Both organizations have extensive experience implementing their respective responsibilities under a number of other interventions, including under several Bank-financed projects. It is expected that 85% of the component financing will be allocated for CFW activities, with the remaining 15% channeled through the PWP. Component 1 will be implemented in close collaboration with the FAO to ensure that they are closely coordinated with the productive investments made under Component 2. Component 1 would ensure immediate access to food for an estimated 18,800 food-insecure households (26,500

individual beneficiaries) by creating temporary employment opportunities through a Cash-for-Work (CFW) program, focusing on restoring damaged public and collective productive assets, including those affected by the 2020 floods. The project would target youth (18-32 years of age) through the community outreach programs and encourage them to participate in the CFW program. The Component will also seek to support employment generation activities targeting women. The Component will finance beneficiary compensation, estimated an average of US\$500 per household per sixmonth period, and the operating costs of SFD and PWP. The detailed criteria for beneficiary selection will be included in the Project Operations Manual (POM), and care will be taken to ensure that the beneficiaries of this Component are not engaged in parallel Bank-financed projects⁷.

16. Component 1 activities would directly contribute to climate change adaptation and mitigate greenhouse gas emissions. The component would provide climate adaptation benefits by promoting livelihood interventions for food insecure populations through resilience-building measures (Sub-projects). Climate-resilient irrigation and water conservation and management practices will restore degraded lands (including terracing) and affected water infrastructure for subsequent productive, climate-smart technology use in agricultural production and allow beneficiaries to earn much needed income from their repair and maintenance through cash-for-work. An estimated 15,700 farmers will have improved access to water infrastructure, irrigation networks, rehabilitated lands, and rehabilitated rural roads. These actions also contribute to climate change mitigation and adaptation by increasing carbon sequestration and improving water management

Component 2: Increasing production and sale of nutritious crop, livestock and fish products (US\$35 million).

17. This Component will be implemented by FAO. The Component would support smallholder farmers and producers to invest in productive assets and help improve their capacity to better commercialize their products and enter new markets. The Component would support: (1) restoring climate-smart local food production to increase household access to food and food availability in local markets, and (2) improving farmer's access to markets for staple and high value cash crops (such as horticultural crops and coffee) by strengthening value chains' vertical and horizontal linkages to increase incomes for beneficiary households. Component 2 would collaborate with IFC in developing selected high value agricultural value chains, building value chains between the project-supported farmers/agricultural producers and investment clients, with the assistance of IFC's Advisory services⁸. This component is therefore expected to restore climate-smart agricultural production while also stimulating the local economy and promoting the production of nutrient-dense foods (e.g., horticulture, pulses, meat (chicken and livestock), dairy and fish). This component would finance two types of support packages.

⁷ SFD is the main implementing agency for CFW components and sub-components under Bank-financed projects.

⁸ One such opportunity for a black sesame value chain has already been identified.

Detailed criteria for beneficiary selection and implementation arrangements will be included in the POM.

Sub-Component 2.1. Restoring climate-smart agricultural production (US\$15.0 million):

18. The Input Package for agricultural producers will promote climate-smart agricultural production focusing on smallholder's re-engagement in horticulture, crop and livestock farming, bee-keeping and fish production. Producers would receive support to restart or expand production, including input starter packages for crops, animal feed, improved forage seeds, equipment and inputs to start fish farming, bee-keeping kits, farm equipment such as fodder choppers and small dairy equipment, energy efficient postharvest handling and storage facilities. The Input Packages will be supported by complementary climate-smart practices supporting diversified production and climate resilience—for instance, by introducing improved varieties and plantings and ways to preserve and manage grasslands. The Sub-component will also provide extension support to producers, including training and advisory services through Farmer Field Schools (FFS) on good agricultural practices, enhanced animal husbandry and feeding practices and climate-smart technologies. SFD, which has extensive prior experience in implementing the types of activities supported under this Component, will work alongside FAO towards restoring and enhancing access to important agriculture inputs. It would also strengthen access to supporting services to ensure maximum benefits from those assets, including the extension services to be supported under Component 4, veterinary services (including vaccinations for animals), the Community Animal Health Workers (CAHWS) and the General Directorate for Animal Health and Quarantine (GDAHWQ), and technical services support.

Sub-Component 2.2. Promoting value addition and sale of nutritious food products (US\$20 million):

19. The second package of interventions (Value Addition Package) will provide in-kind grants (Asset Transfer) to support enterprising producers, processors and traders to scale up, add value to their products, improve product quality and aggregation, consolidate production, and access local and regional markets with their products. The subcomponent will work with the value chain participants to structure the value chain, providing both training and advisory support in technical aspects (aggregation, development of linkages with farmers, product quality and others), business skills capacity building, and provide beneficiaries with key assets (equipment, machinery and working capital), enabling them to increase the quality and commercialization of food products. In areas with high numbers of Internally Displaced Persons (IDPs), the project will build capacities of farmers in good agricultural practices, value chain development and maintenance of local infrastructure, to improve mutual trust, understanding and collaboration between displaced and host populations. SFD, which has extensive prior experience in implementing the types of activities supported under this Sub-component, will work alongside FAO to increase the farm-gate value and nutritional content of some agricultural products through provision of improved technologies and practices for key horticulture crops. The equipment and machinery provided under the sub-component will be climate-smart and more environmentally friendly than conventional technologies. Most of the equipment and machinery is expected to be procured, imported and distributed to the value chain/value addition beneficiaries by FAO. Some of the value chain activities may also cover the beneficiaries who received earlier support under the FAO implemented Yemen Smallholder Agricultural Productivity Restoration and Enhancement Project (SAPREP) and UNDP implemented Yemen Emergency Crisis Response Project (YECRP).

- 20. Sub-component 2.2 will support key value chains mostly focused on the local market, including beans and cereals, vegetables, dairy, livestock and fish value chains. To increase production, improve product quality, extend shelf-life, reduce food loss, and improve energy efficiency, the component will complement the Input Packages by providing in-kind grants for value chain development, post-harvest enhancement and value addition activities. The size of in-kind grants will depend on the type of beneficiary financed – a group or individual, as well as on the nature of the activity. Larger-scale investments, such as seedling centers, post-harvest centers, hydroponics, dairy processing facilities, etc., will be implemented though groups of beneficiaries. For group beneficiaries, the upper value of the in-kind grants should not exceed a maximum of US\$70,000 per group. The only exception to this maximum size limit may be groups engaged in milk collection and dairy processing where construction of infrastructure is necessary. Given the high start-up costs, the maximum value of such in-kind grants should not exceed a maximum of US\$120,000 per group. Individual beneficiaries who will receive support for activities such as beekeeping, poultry production, horticulture production and processing, food preservation, agro-logistics services and other incomegenerating value-addition activities, the grant shall not exceed US\$2,000 per individual beneficiary. All in-kind grant financed by the project should be supported by a business idea description, description of the market, value chain arrangements and financial viability. The length of the business idea description should be commensurate with the size of the in-kind grant.
- 21. The sub-component will also support investments and technical assistance in selected high-value, high-growth value chains (such as coffee, fruits and nuts, and poultry and eggs⁹), some of them in collaboration with IFC and aiming to generate private sector investments. This should generate higher employment and household incomes, improve access to food, and allow for higher diversification of household diets. To ensure that the products are delivered to the market, and to create additional jobs, selected small-scale agro-logistics service providers may also be supported. The component will prioritize the adoption of climate-smart crop and livestock practices to reduce greenhouse gas emissions and enhance resilience to climate change. SMEPS will be working alongside FAO and IFC to ensure knowledge transfer on value chain development and support to build SMEPS's capacity to engage in similar activities in the future. To further review and strengthen opportunities for development of value chains, the Sub-component will also finance studies in two areas: (1) A fisheries and aquaculture needs assessment and a

⁹ Based on the results of application of the Agricultural Investment for Development Analyzer (AIDA) model by the International Food Policy Research Institute (IFPRI)

fisheries and aquaculture stock assessment; and (2) agro-logistics constraints and solutions for selected value chains. The sub-component will also support limited small-scale laboratory equipment for selected universities to support the value chain development activities, as well as the payment of operating costs of SFD and SMEPS and limited capacity building activities (if required) associated with carrying out activities under Component 2.

- 22. The in-kind grants under Component 2 will work as follows:
 - Seedlings centers: based on prior project experience from the SAPREP, the land will be rented/voluntarily donated depending on the area and in agreement with the beneficiaries.
 - Post-harvest collecting centers: will be donated as part of a community's participation, either from farmers' associations, community committees, or local councils in the targeted areas and under the supervision and management of MAI offices in the targeted governorates.
 - **Hydroponics:** inputs for hydroponics will be distributed to a group of farmers and handed over to project beneficiaries after the project concludes.
 - Dairy processing facilities and livestock: an appropriate place or shop will be rented/donated by the farmers' association during the project's operation

Component 3: Improving the nutritional status of vulnerable rural households (US\$49.3 million).

23. Sub-component 3.1 will be implemented by FAO and Sub-components 3.2 and 3.3 will be implemented by WFP. This component would aims at improving the nutritional security of very vulnerable (Sub-components 3.1 and 3.3) and moderately vulnerable (Sub-component 3.2) households through a variety of instruments, including: (1) targeted nutrition-sensitive agriculture activities and facilitating uptake by poor households of appropriate dietary and nutrition practices, in particular improving nutrient intakes of pregnant mothers and children under two, (2) promoting women's entrepreneurship activities and improving the diets of the female-led households, and (3) improving nutrition in vulnerable households with malnourished women and children. Component 3 beneficiaries may also include the Cash-for-Nutrition beneficiaries under the ECRP, to ensure that they receive support allowing them to start their own production of food or improve nutritious diets on a more sustainable basis.

Sub-Component 3.1. Promoting kitchen gardens and backyard production for improved diets and climate resilience (US\$10.0 million):

24. FAO will implement this sub-component which will target beneficiary households that have received malnutrition treatment and prevention services referred to under Sub-component 3.3, former beneficiaries of the Cash-for-Nutrition programs under the ECRP, households with pregnant mothers and children under two, and other eligible households with a similar vulnerability level. The sub-component will provide inputs

(vegetable seeds, chicken, etc.) for households to establish kitchen gardens and backyard production of nutritious food items (vegetables, eggs, and meat) using climate-smart agricultural practices. It is estimated that the sub-component will reach 20,000 beneficiary households. Beneficiaries would also receive two types of training. To improve backyard production, they will receive training on good and climate-smart agricultural production practices. The sub-component will prioritize the adoption of climate-smart crop and livestock practices to reduce greenhouse gas emissions and enhance resilience to climate change. To maximize the nutritional value of available food, training sessions will be offered to beneficiaries of this sub-component on how to maximize the nutritional value of foods when preparing family meals. Also, the project will use different communication channels to spread nutrition messages to trigger behavioral change in target populations. Since women are the main family caretakers, mostly women beneficiaries are expected to partake in these activities, however, the training will be open to both women and men.

Sub-Component 3.2. Promoting women's rural entrepreneurship for improved nutrition and food security (US\$14.3 million):

25. The sub-component will be implemented by WFP and will focus on promoting women's entrepreneurship to generate higher income and improve nutritious diets and food security at the household level. WFP's resilience and livelihood interventions will mainly target moderately food-insecure people to prevent them from slipping into further food insecurity. WFP will work with national/international NGO partners and provide Food Assistance for Training to food-insecure women, especially targeting those who are heading their households in rural communities. The training will develop their skills, aimed at restoring or establishing their livelihoods, and starting their own businesses. The support in most cases will range from six to nine months (at the monthly payment of US\$105), giving participants access to various trainings, such as skill development, business development and management, digital skills, entrepreneurship, improved nutrition and life-skills (e.g., health practices) while they are supported by a monthly allowance. Once trainings are completed and a business plan submitted and approved, the women would receive a start-up grant (F4T Start-Up Grants) to start diversified income generating activities (both agricultural and non-agricultural). The average grant amount per individual will be US\$630 and not exceed a maximum of US\$800. Increasing the productive capacity and livelihoods potential of rural women, especially in agriculture and food production, will help sustain their food and nutritional security when the assistance period ends. Similar to the Sub-component 3.1, for agricultural activities, the Sub-component 3.2 will prioritize the adoption of climate-smart crop and livestock practices to reduce greenhouse gas emissions and enhance resilience to climate change. WFP's comprehensive approach also includes training and support related to gender-based violence, preventing infectious disease spread, and child-care, nutrition and health practices. Participants will be encouraged to work together in joint business ventures with an estimated 3 participants per business, although the number may vary based on participant preferences and conditions for joint ventures in the targeted areas. It is expected that around 7,500 women will participate in the training, establishing an estimated 2,500 businesses.

Sub-Component 3.3. Providing nutrition assistance to treat and prevent malnutrition (US\$25.0 million) for pregnant and lactating women and girls (PLWG) and children under 5 years old.:

26. This sub-component will be implemented by WFP and constitutes an integrated malnutrition prevention and treatment response. WFP will provide blanket supplementary feeding with specialized nutrition products to children aged 6–23 months and pregnant and lactating women and girls (PLWG) to prevent and treat acute and chronic malnutrition in the project area districts prioritized for integrated famine response. Likewise, WFP will provide targeted supplementary feeding to malnourished children aged 6–59 months and PLWG to treat moderate and acute malnutrition across the country. Beneficiaries of targeted supplementary feeding will be screened both at community and in local health centers, through community health volunteers and screening campaigns organized by the Ministry of Public Health and Population (MOPHP), using mid-upper arm circumference (MUAC) and weight-for-height measurements. This is accompanied by social behavior change communication (SBCC), designed to reduce barriers to adequate infant and young children feeding practices and healthy eating and hygiene habits. The SBCC campaign will target PLWG, health workers and caregivers, and also other decision makers and influencers within the community such as parents-in-law, husbands and local leaders. Messaging will focus on ensuring that responsibility for the care of children is shared within the household and not only limited to women. During the project period, around 214,000 beneficiaries are expected to be reached through the Treatment Program, including 164,000 acutely malnourished children under the age of five and 50,000 acutely malnourished pregnant and lactating women and girls, as well as around 304,000 beneficiaries through the Prevention Program, including 164,000 children under the age of two and 140,000 pregnant and lactating women and girls.

Component 4: Capacity building for food security management and climate resilience (US\$6.0 million).

- 27. FAO will lead implementation of this component in cooperation with other partner organizations as described below. This component includes a set of activities that are expected to significantly strengthen the capacity of both the private (households) and public sectors for food security crisis planning and response:
 - (a) Developing an evidence-based and climate-informed Food Security Preparedness Plan (FSPP). The FSPP development will be co-led by the World Bank (financed under a separate budget) and the FAO and will be carried out in a highly participatory manner, consulting with the main line ministries and institutions involved in the agricultural sector, multilateral and bilateral organizations, the private sector; and civil society including international and local NGOs. The FSPP will be prepared within six months of project effectiveness and it will be reviewed by the World Bank's Technical Expert Group on Food Security. As required, the project will also include

capacity building of local government partners. The FSPP implementation will be monitored on a regular basis throughout the project period.

- (b) Establishing a satellite-based Earth Observation (EO) crop and pasture monitoring and early warning system for detecting climate-induced hazards. This entails designing and deploying a satellite remote sensing and geographical information system tool to monitor agricultural production activities and enable informed decision-making for food import planning. This EO tool would support monitoring agricultural production, providing information to the Government of Yemen (GOY) for decision-making regarding food imports planning. The data generated by the EO tool will also feed into the FSPP implementation. The TORs for the EO tool establishment will be subject to the World Bank's no objection, including to ensure that the EO tool would be used for the intended (civilian) purpose only. The EO tool will initially be housed by FAO and arrangements to transfer to the appropriate agency will be identified during the project Mid-Term Review (MTR).
- (c) Strengthening agriculture extension services by financing capacity building of the existing extension services, including current extension services staff, CAHWs and other extension service agents working in the communities. An electronic agricultural extension services platform and call-in advisory service will also be developed. A significant number of women, enrolled based on the selection criteria which will be reflected in the POM, will be trained as extension workers, agricultural technicians, and CAHWs under this activity and recruited to be part of Farmer Field Schools (FFS).
- (d) Piloting alternative agricultural production technologies will introduce alternative, climate-smart land- and water-efficient agricultural production technologies for producing nutritious crops (e.g. soil-less technologies, such as hydroponics and aquaponics) by financing technology pilots and demonstrations in areas where previously, production would not have been possible, due to limited land resources.

Component 5: Project Management and Knowledge Management (USD 16.7 million).

- 28. This component would cover the costs associated with project management for all three implementing agencies (FAO, UNDP and WFP), recognizing the particularly challenging operating conditions in Yemen. Covered implementation costs include financial management, procurement, environmental and social aspects, communication and stakeholder engagement, and overall monitoring and evaluation (M&E). Additionally, M&E is expected to be strengthened by using the Geo-Enabling initiative for Monitoring and Supervision (GEMS please see the paragraph below) and by carrying out an additional impact assessment (in collaboration with IFPRI), to assess the suitability and impact of project interventions. This component would also finance a third-party monitoring (TPM) mechanism and establish and maintain a grievance redress mechanism (GRM). Each implementing agency will have a separate GRM mechanism.
- 29. For real-time data collection and analysis, the project will implement the Geo-Enabling method for Monitoring and Supervision (GEMS). The GEMS method enables project

teams to use open-source tools for in-field collection of structured digital data that automatically feeds into a centralized M&E system and Management Information System (MIS). Under the project, the implementing agencies will develop the relevant tools for the supervision of their components, which will feed information into the M&E system of the agencies. The integrated data would include any kind of indicators, based on tailor-made forms; photos, audio, videos; time and date stamps; and GPS coordinates that allow for automated geo-mapping of the information. The tools will allow the project to enhance the transparency and accuracy of project planning as well as M&E and third-party monitoring throughout the project cycle. GEMS will also allow for establishing a digital platform for remote supervision, real-time environmental and social monitoring, and portfolio mapping for coordination across project components as well as with other operations in the region. The GEMS will be applied where possible and appropriate, in full transparency with relevant authorities.

30. Integration of COVID-19 response. The project will use its resources (such as field consultants) to integrate COVID-19 awareness and preventive measures in the training events and awareness campaigns planned for beneficiaries. Awareness raising and training events will follow precautionary measures described in workshop/training protocols, as well as enforce and maintain adequate distancing during control, distribution, training, payment, and other project activities. These will also be held in locations and during times that are convenient for women. The project will work with local communities, female and male consultants, and beneficiaries to reach households with awareness and hygiene materials (such as masks, hand sanitizers and other relevant consumables) that will be developed to resonate with women and men's different roles and behaviors at home and in society. The decision on which hygiene materials to procure will be made in coordination with the Bank-financed COVID-19 health emergency project in Yemen.

Project Costs and Financing

31. The project will be financed by a grant in the amount of US\$127.0 million using an Investment Project Financing (IPF) instrument. The project would be financed from two sources: an IDA grant of US\$100 million from the Crisis Response Window (CRW), including US\$50 million from the Early Response Facility (ERF), and US\$50 million from the Severe Crisis Resources, and a US\$27 million grant from the Global Agriculture and Food Security Program (GAFSP), inclusive of US\$20 million financed from the regular GAFSP program and US\$7 million provided under the GAFSP COVID-19 response program. The project would have an overall duration of four years, however, given the associated terms and conditions, the various sources of financing will have different implementation schedules. The COVID-19 financing of GAFSP would be implemented during an 18-month period (therefore, these are expected to be the first withdrawals from the trust funds), the CRW financing over four years, and the GAFSP regular financing in the amount of US\$20 million would be implemented over four years. The cost breakdown by component and expected disbursement by source of financing is indicated in Tables 1 and 2, respectively.

32. The project is designed to disburse most of the funds during the first two years of implementation. About 65 percent of the total financing (see Table 3 below) is planned to be disbursed over the first two years for short-term activities to yield fast results on the ground. These activities include CFW activities under Component 1, the provision of input kits under Sub-component 2.1, the provision of agricultural inputs for backyard and kitchen garden production under Sub-component 3.1 Cash-for-Training activities reaching women beneficiaries, and provision of specialized foods under Sub-component 3.3. It is estimated that the project will reach at least 650,000 beneficiary households during the first two years.

		IDA Financing (US\$ million equiv.) Dresiget			Share of		
Project Components	Project Cost (US\$ million equiv.)*	CRW ERF (US\$ million equiv.)	CRW SCR (US\$ million equiv.)		Regular Program (US\$ million equiv.)	COVID- 19 Response (US\$ million equiv.)	Financing
1. Improving household income through CFW for agricultural production infrastructure	20.0	7.5	7.5	75.0%	2.0	3.0	25.0%
2. Increasing production and sale of nutritious crops, livestock and fish products	35.0	12.2	12.5	70.0%	8.2	2.1	30.0%
3. Improving the nutritional status of vulnerable rural households	49.3	21.4	20.4	70.0%	6.5	1.0	30.0%
4. Capacity building for food security management	6.0	3.0	3.0	100.0%	0.0	0.0	0.0%
5. Project management and knowledge management	11.0	3.9	3.9	70.9%	2.5	0.7	29.1%
UN Agency Fees Total Project Cost	5.7 127.0	1.9 50.0	2.8 50.0	82.5% 78.8%	0.8 20.0	0.2 7.0	17.5% 21.2%

Table 1: Project Costs by Component and Source of Financing

* Please note that amounts may not fully add up due to rounding errors.

	Project Cost	0		
Project Components	(US\$ million	FAO	UNDP	WFP
roject components	equiv.)*	TAU	ONDI	
1. Improving household income through CFW	20.0		20.0	
for agricultural production infrastructure				
·····				
2. Increasing production and sale of nutritious	35.0			
crops, livestock and fish products. Sub-				
component:	15.0	15.0		
- 2.1: Restoring climate-smart agricultural	20.0	20.0		
production				
- 2.2: Promoting value addition and sale of				
nutritious food products				
3. Improving the nutritional status of	49.3			
vulnerable rural households. Sub-component:				
- 3.1: Promoting kitchen gardens and backyard	10.0	10.0		
production for improved diets				
- 3.2: Promoting women rural entrepreneurship	14.3			14.3
for improved nutrition				
- 3.3: Providing nutrition assistance to treat and	25.0			25.0
prevent malnutrition				
4. Capacity building for food security	6.0	6.0		
management				
5. Project Management and Knowledge	11.0	7.1	2.7	1.2
Management				
Sub-total project cost	121.3	58.1	22.7	40.5
UN Agency Fees	5.7	2.9	1.1	1.7
Total Project Cost	127.0	61.0	23.8	42.2

Table 2: Project Cost by the Sub-component and Implementing Agencies

*Please note that amounts may not fully add up due to rounding errors.

Project Components	Year 1	Year 2	Year 3	Year 4	Total
IDA CRW ERF	17.0	17.0	9.0	7.0	50.0
IDA CRW Severe Crisis	16.0	18.0	10.0	6.0	50.0
Resources	4.0	4.0	4.0	8.0	20.0
GAFSP Regular	3.0	4.0	0.0	0.0	7.0
GAFSP COVID-19 Response					
Total	40.0	43.0	23.0	21.0	127.0

Table 3: Tentative Disbursement Schedule b	y Source of Funds

Project Beneficiaries

33. The primary beneficiaries of the project are rural households most affected by food insecurity in the targeted governorates. With its various activities, the project is expected to reach around 1 million beneficiaries. The primary beneficiaries of the project will be: (a) under the CFW program of Component 1, moderately food-insecure rural households at risk of falling further into food insecurity; (b) under the agricultural production and commercialization activities of Component 2 and alternative agricultural production activities under Component 4, smallholder farmers; (c) under the women entrepreneurship activities of Sub-component 3.2, women beneficiaries from moderately food insecure households at risk of falling further into food insecure households with PLWG and children under five. Additionally, the government and local governments will be beneficiaries of the capacity building activities under Component 4. The detailed criteria for selection of beneficiaries will be provided in the POM. The outreach to beneficiaries will be coordinated with other donor and Bank-financed interventions, to ensure minimum overlap (except the cases mentioned in the project description section above).

Project Area

34. Selection of project area. The project is expected to operate in the areas with the highest food insecurity, poor nutrition outcomes and livelihoods constraints, and in need of emergency assistance. District-level project sites will be selected within the targeted governorates (based of the IPC classification) based on the food insecurity and malnutrition levels. Districts with the highest level of food insecurity and malnutrition will be prioritized, and the presence of aggravating factors (floods, impact of COVID19related restrictions and desert locusts) will be included in selection criteria. Other criteria will include agriculture's contribution to livelihoods (proportion of rural population), household poverty levels, and whether the household has benefitted from other relevant programs in agriculture and livelihood support/food security¹⁰. The project will be implemented in areas which are accessible and where the project recovery and development interventions can be implemented. The approach is to keep the project design flexible, allowing for adjustments as needed. This may include changes in the project targeted districts if original districts become inaccessible and adjustments to the implementation schedule due to access and security constraints and other reasons. The initial set of 81 target districts in which the project will operate has been selected across eleven governorates: Abyan, Al Bayda, Al Dhale'e, Al Hudaydah, Al Jawf, Amran, Dhamar, Hajjah, Lahj, Taiz, and Shabwah. The district selection may be revised with an appropriate justification or if a district no longer meets the criteria.

2.2 Anticipated Subproject Types

- 35. Component 1 is expected to include subprojects which involve the following:
 - Small-scale, infrastructure-related works which:

¹⁰ The project will leverage SFD's knowledge of the various programs and their beneficiaries.

- i. Restore damaged public and collective productive assets, including those affected by the 2020 floods;
- ii. Relate to the production-related investments recommended under Component 2;
- iii. Utilize temporary labour through a blend of locally sourced contractors who employ community members; and
- iv. Involve Cash-for-Work transfers to households involved in the related works.
- 36. Component 2 is expected to include subprojects which involve:
 - Provision of input packages to re-engage farmers with horticulture, crop, and livestock farming, bee-keeping, and fish production while simultaneously supporting the Climate Smart Agriculture (CSA) approach. Inputs include:
 - i. starter packages for crops;
 - ii. animal feed;
 - iii. improved forage seeds;
 - iv. equipment and inputs to start fish farming;
 - v. bee-keeping kits;
 - vi. farm equipment such as fodder choppers and small dairy equipment; and
 - vii. energy efficient post-harvest handling and storage facilities.

4 Asset transfers as part of value addition packages; specifically:

- Transferring assets to support enterprising producers, processors, and traders in scaling up and adding value to their products (e.g. improving quality and aggregation, consolidating production, accessing local and regional markets with their produce) – this involves physical provision of the equipment, machinery, and working capital in support of increased quality and ability to commercialize food products;
- ii. Focusing support on key value chains mostly focused on the local market (e.g. beans and cereals, vegetables, dairy, livestock and fish value chains);
- iii. Limited small-scale laboratory equipment for selected universities to support value chain development activities
- iv. Procurement, importation, and distribution for most of the equipment and machinery by FAO;
- v. Implementation of larger-scale investments (e.g. seedling centers, postharvest centers, hydroponics, dairy processing facilities, etc.) though groups of beneficiaries; and
- vi. Support to activities of individual beneficiaries focussed on beekeeping, poultry production, horticulture production and processing, food preservation, agro-logistics services, and other income-generating valueaddition activities.

Technical Assistance, including:

i. Technical and advisory support for the value addition packages on technical aspects and business skills; and

- Support for Internally Displaced Peoples (IDPs) in the area of Good Agricultural Practices (GAP), value-chain development, and operations & maintenance (O&M) for local infrastructure, in order to foster community trust;
- iii. Technical assistance for high-value, high-growth value chains (e.g. coffee, fruits and nuts, and poultry and eggs) and selected small-scale agro-logistics providers; and
- Studies, including: (i) a fisheries and aquaculture needs assessment and a fisheries and aquaculture stock assessment; and (2) agro-logistics constraints and solutions for selected value chains.
- 37. Component 3 is expected to include the following subproject types:

4 Targeted nutrition-sensitive agriculture activities, which include:

i. Provision of inputs (vegetable seeds, chickens, etc.) to households for climate-smart backyard and kitchen gardens;

4 Technical assistance on:

- i. CSA for backyard gardens
- ii. Maximizing the nutritional value of foods when preparing family meals.
- Supplementary feeding programmes to improve nutrition in vulnerable households with malnourished women and children
- Promotion of women's entrepreneurial activities while improving diets of female-led households through the provision of monetary assistance and training
- 38. Component 4 is expected to include the following subproject types:
 - Capacity building for food security management and climate resilience, including:
 - Piloting alternative agricultural production technologies (e.g. soilless technologies like hydroponics and aquaponics in demo areas where production would not have otherwise been possible due to limited land resources;
 - ii. Developing an evidence-based and climate-informed Food Security Preparedness Plan (FSPP);
 - iii. Establishing a satellite-based Earth Observation (EO) crop and pasture monitoring and early warning system for detecting climate-induced hazards; and
 - iv. Strengthening agriculture extension services.
- 39. Component 5 is expected to include the following subproject types

Project management and knowledge management

2.3 Project Implementation Arrangements

- 40. Lessons Learned from Implementation of Past Projects: Successful project implementation in challenging operational environments hinges on carefully considered partnerships and implementation support arrangements, with local capacity building incorporated into the project design. In countries, like Yemen, where capacity to implement and coordinate a crisis response in lacking, the key is to work effectively with partners whose presence on the ground can mobilize a response. Success factors in these cases include: a mutual understanding of respective roles and responsibilities; accepting the need to navigate organizational differences; open lines of communication throughout implementation; and adopting best practices in terms of Third-Party Monitoring (TPM). Yet it is also important to build lasting skills on the ground through capacity building, as the experience of the South Sudan Emergency Food and Nutrition Security Project shows. Any outside technical assistance needs to be balanced by a strong program of capacity building (technical and managerial) for the client. Close supervision is also needed to effectively track progress, communicate, and establish teamwork.
- 41. **Implementation Arrangements for FSSRP:** The project will be implemented by three UN agencies: FAO, UNDP, and WFP; ensuring project activities reach throughout both the South and the North of Yemen. The Project Operation Manual (POM) presents the full details of project implementation arrangements and the role of partner agencies, and a summary pertaining to safeguards-related implementation is indicated in this ESMF. Each agency will implement part of the project based on their mandate and relevant experience.
 - FAO is the specialized UN agency responsible for and well positioned to respond to emergencies in agriculture and food security, including crop and food supply monitoring and needs assessments, evaluations of agricultural relief requirements, and mobilizing assistance and resources to restore agricultural activity. The FAO has prior experience in supporting the implementation of Bankfinanced projects on the ground in Yemen (since 2017 it has led the implementation of SAPREP toward satisfactory achievement of results and more recently it became the implementing agency for the Desert Locust Response Project; P174170). SAPREP, implemented in collaboration with SFD, supported a set of similar activities, including CFW, support to agricultural production by providing input kits and ensuring access to associated services (such as animal health services). The project's implementation performance rating is Satisfactory. Given their prior experience in implementing SAPREP, FAO is fully aware of the Bank's fiduciary and environmental and social requirements. FAO has put in place enhanced M&E mechanisms to supervise local implementation partners and has also been using TPM.
 - UNDP is the UN's development program and it is committed to supporting the peacebuilding initiative in Yemen, political stability and enhanced local governance. UNDP has built a successful partnership with the World Bank in

implementing the CFW activities of the ECRP and Emergency Social Protection Enhanced Covid19 Response Project (ESPECRP). UNDP is partnering with the SFD and PWP and their community networks to deliver services. Given their prior experience in implementing the ECRP and ESPECRP, the UNDP is fully aware of the Bank's fiduciary and environmental and social requirements. UNDP established an M&E system to ensure proper project management, assuring stakeholders and providing accountability and is also using a TPM mechanism to monitor project implementation. UNDP communicates with the World Bank monthly on project implementation and to address emerging challenges. UNDP had a good collaboration with FAO on water resource management, aimed at enhancing access to water in agriculture and improving the effective use and management of scarce water resources in Yemen.

- WFP is the food-assistance program of the United Nations and is the world's largest humanitarian organization, the largest one focused on emergency food crisis response, and the largest provider of school meals. In Yemen, in addition to food and nutrition interventions, such as school feeding programs, WFP is also engaged in livelihoods development activities through a range of instruments, including Food-for-Assets and Food-for-Training in close cooperation with FAO. WFP's vulnerability, mapping and assessment (VAM) expertise conducts joint nation-wide food security and livelihood assessments which inform the IPC for Yemen, as well as regular food security and price monitoring and analysis. WFP is an implementing agency under the World Bank-financed Restoring Education and Learning Project (P175036), engaged in school feeding activities, and it has experience with the Bank's fiduciary and environmental and social requirements.
- 42. The Country Representation Offices of the three UN agencies will be responsible for the overall implementation of their respective activities and coordinating all relevant activities at the sub-national level, supported by the regional office staff who will monitor the activities in different governorates. The FAO will be the lead agency for the implementation of the project and will be a recipient of both IDA and GAFSP financing. UNDP will also receive both IDA and GAFSP financing. WFP will receive IDA financing. Each UN agency will be responsible for the technical implementation of the relevant components and sub-components (as indicated in the PAD), as well as all fiduciary, environmental, and social aspects, monitoring and reporting. The UN agencies will help ensure financial and technical accountability of the implementing partner organizations (such as SFD, SMEPS and PWP) and ensure appropriate training and capacity building of the staff of the implementing partner organizations. Specifically:
 - The FAO will establish a Project Coordination Unit (PCU) based in Sana'a within 30 days of project effectiveness, and technical staff deployed in its Aden suboffice and other decentralized hubs to ensure day-to-day project management, including all fiduciary, environmental and social safeguards aspects, and monitoring and reporting. This will include the hire or appointment of one Environmental Safeguards Specialist and one Social Safeguards Specialist. Additional expertise pertaining to safeguards may be outsourced, as needed.

- UNDP and WFP will assign dedicated staff to support project implementation and ensure timely and relevant contributions to the PCU work. UNDP shall hire or appoint an International Environmental and Social Specialist (IESS), Environmental Safeguards Specialist (ESS), Occupational Health and Safety Specialist (OHS), and Social Safeguard Specialist (SSA) or any relevant position for ESHS. WFP shall hire or appoint staff with expertise in nutrition, Gender & Gender Based Violence (GBV), resilience and livelihoods interventions, to implement the Project, provide technical advice and support the management of ESHS risks and impacts. Furthermore, WFP will define their respective management structures to implement the Project and reflect those structures identified in the Stakeholder Engagement Plan (SEP). WFP will identify qualified staff and resources, particularly staff with environmental and social expertise, to be assigned to the Project and to support the management of ESHS risks and impacts.
- 43. This proposed structure would build on the experience with previous grants implemented by FAO in the country. Moreover, the UN agency teams in Sana'a are backstopped by dedicated teams of technical experts at regional and Headquarters level, as the case may be for the different UN agencies, in line with the Level 3 fast-track procedures established due to the emergency situation in Yemen.
- 44. Coordination. The three selected organizations are currently working in Yemen and exchanging information as part of their participation in partner meetings. The three UN agencies will set up a formal project Coordination Committee, including local partners like SFD, PWP, and SMEPS, for increased efficiency and efficacy, including coordinating activities with and among the Implementing Partners. This committee will hold meetings on a regular basis (likely monthly) to best coordinate their activities, evaluate progress, address bottlenecks, and consolidate annual work plans. The UN agencies will prepare and maintain a jointly agreed co-ordination activity matrix with delineated activities, responsibilities by implementing agency and timeline, to ensure smooth co-ordination in project implementation. The frequency of meetings, attendance, communication tools and other details will be described in the POM. Collecting and reporting on indicators (including methodology, tools, devices, etc.) to inform the results framework and progress on implementation will be discussed and agreed among implementing partners with the support of the Bank. A mechanism will also be established to brief the authorities at local, governorate and national on a regular basis on the project results and progress with implementation.
- 45. Local partners with prior extensive experience in implementing similar projects will have key implementation roles. The PWP and SFD would play a key role as the local implementing partners for Component 1, SFD and SMEPS would support implementation of small-scale value chain activities, provision of technologies and practices for some horticulture crops and restoration of agriculture inputs under Component 2, alongside FAO. The SFD and PWP are the key local partners in implementing the ongoing ECRP, SAPREP and Desert Locust Response Project (DLRP;

P174170), and they would lead the implementation of Component 1. SMEPS would contribute to the value chain development under Component 2. Selecting national institutions for these roles would contribute to building national capacity for community-based interventions. For activities that would be implemented by SFD, SMEPS and PWP, UNDP, WFP and FAO would provide technical guidance and backstopping as required.

- Under the CFW program of Component 1, SFD will be in charge of working with beneficiaries on the cash component, as well as of restoring climate smart agriculture and value addition under Component 2. The Agriculture and Rural Development Unit (ARDU) which will be the SFD's structural unit in charge of the implementation of the relevant project activities on behalf of SFD under Component 1, are located in SFD's central office in Sana'a, while the branch offices of SFD would provide support and coordination in their own governorates. Additional personnel will be recruited to cover any skills or human capacity gaps, as assessed during project preparation. All staff are required to have satisfactory expertise, experience, and qualifications. SFD has strong capacity and experience spanning over 20 years in undertaking participatory and community-based development activities involving women and men from local communities.
- PWP, under Component 1, will focus on activities related to small-scale infrastructure works to be carried out by local contractors in cases when the infrastructure projects are more complex. The PWP Headquarter in Sana'a will be the office in charge for implementing activities under PWP through their own 10 Branch/sub-area offices in various governorates. PWP has an extensive experience in its area of responsibility under the project, spanning 20 years, and well-qualified staff with specialized skills in implementing locally and externally financed projects. Additional personnel will be recruited to cover any skills or human capacity gaps, as assessed during project preparation. All staff are required to have satisfactory expertise, experience, and qualifications.
- SMEPS will work under Component 2 to ensure technical assistance to the value chain development activities. The management unit in SMEPS central office in Sana'a will provide overall management and support to the project, while the branch offices will implement the field activities, and provide support and coordination for project activities. Each branch consists of a branch manager, a programs and projects unit which includes Communications & Advocacy, Monitoring, Evaluation, Accountability and Learning (MEAL) and a Procurement Unit, a Finance Unit and Administrative Services which are responsible for the implementation and monitoring of all activities in the field. SMEPS is well known for its skilled and well-experienced staff. Similar to the other two national institutions, SMEPS will recruit additional personnel to cover any skills or human capacity gaps, as assessed during project preparation. All staff are required to have satisfactory expertise, experience, and qualifications.
- 46. **Results Monitoring and Evaluation:** The UN agencies will be responsible for coordinating project monitoring activities for their respective Components and Sub-components. The

objectives of the Agency M&E system are to measure input, output, and outcome indicators to provide project staff and stakeholders with regular information on project implementation and outputs, identify potential problems, and determine to what extent the project is achieving its development objectives. The M&E methodology will be aligned with the definitions and collection methodologies of the project to enable data aggregation and consolidation at the project-wide level. The UN agencies will utilize their existing M&E systems as outlined in the PAD and confirmed in the Financial Agreement (FA).

- 47. Monitoring and evaluation will be based on the collection and reporting of data on the PDO and intermediate indicators (see the Results Framework (RF) in the PAD for a full description of these indicators). The results will be presented to the Bank in semi-annual progress reports as well as the Mid-Term Review (MTR) and final independent evaluation reports. A baseline survey will be conducted in the project areas. Additional surveys will be held at the MTR stage and project completion. For their respective activities, the UN agencies and National Institutions will use the detailed data collected through the standard reporting formats for various levels and other relevant documentation, including formats for mobile team reporting and integrated outreach reporting on all interventions based on Agency M&E systems. At each UA agency or National Institution hub office data will be collected and reviewed before it is consolidated at the central level by the relevant UN agency.
- 48. In addition to regular M&E activities, each UN agency will use an independent TPM Agency (TPMA) to assess quarterly performance and field monitoring of project implementation. The TPMA will be expected to: (1) track performance through the collection of appropriate and credible data and other evidence; (2) analyze evidence to inform decision-making by World Bank and UN agency management; (3) recommend improvements in effectiveness and efficiency as necessary; and (4) report on performance and lessons to facilitate learning and support accountability, including learning from beneficiaries' experience. Data collection, analysis and reporting will be carried out in a sex-disaggregated way. The terms of reference (TORs) for the TPMAs will be agreeable to the Association as per the FA. Where existing TMP arrangements are in place (such as all UN agencies have existing TPMAs already), the existing arrangements will be shared with the Bank, no later than three (3) business days after its receipt, to enable concurrent supervision and timely assessment of project implementation.
- 49. Additional research to inform food security response mechanism design in FCV context. The project aims to carry out additional research to assess the effectiveness and efficacy of the activities supported by the project in addressing short, medium and long-term food security. Specifically, the research would analyze the activities, response mechanisms and results achieved under Component 1, 2 and 3. The research carried out through a collaborative process would emphasize capacity building for government partners in understanding the efficacy of specific response mechanisms, the role of project evaluation and interpreting and communicating the evaluation findings in support of evidence-based policy. It would also contribute to informing the overall IDA's

FCV agenda and GAFSP. The knowledge gained from these evaluations will be valuable for fine-tuning project implementation and potentially informing scaling up of this project or others, as well as strengthening the quality of reports on project impacts. The analytical work would be led by IFPRI researchers with experience in multiple impact evaluations in Yemen and will be coordinated by FAO and financed from the project funds allocated to FAO. Additional details on the proposed research are presented in the POM.

III. POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

3.1 Political and Strategic Framework

- 50. <u>National Adaptation Plan of Action (NAPA)</u>: One of the key national policies is the NAPA, which is focused on climate change. As stipulated by the UNFCCC, NAPAs provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and costs at a later stage. On 31 March 2009, Yemen's NAPA was endorsed by Cabinet Decree. The legal promulgation of the NAPA marks a major step for the Yemen and enhances the chances of the country to be eligible to priority development support under the LDC schemes (e.g. the Global Environment Facility (GEF)).
- 51. National Biodiversity Strategy and Action Plan of Yemen (NBSAP): The goal of the NBSAP is to reverse present negative trends by mobilizing the resourcefulness of the Yemeni people and applying international technical and financial support. Yemen aims at the restoration and rehabilitation of its diversity of species, genetic resources, and ecosystems. Specific objectives were identified to govern the thrust of the action plan. These objectives spell out the principles to preserve and use in a sustainable way the irreplaceable biodiversity and natural resources of Yemen. The principles include: a) striving to maintain the integrity of Yemen's land and marine resources and their biotic wealth; b) respect for the intrinsic value of all forms of life, while uses need to be made both sustainable and equitable; c) pursuit of collaborative management agreements and institutions; d) indigenous natural resource management systems of the Yemen people will be supported, protected, utilized and seen as a rich natural heritage; e) responsible public management based on accountability, transparency, participation in decision making and a full analysis of impacts; and, f) the Precautionary Principle (as defined in the 1992 Rio Declaration on Environment and Development). The NBSAP is currently undergoing some updates.
- 52. <u>National Food Security Strategy</u>: In response to Yemen's alarming food insecurity situation, the Yemeni government developed its National Food Security Strategy (NFSS), which was adopted by the Council of Ministers in February 2011. The NFSS key objectives were to reduce food insecurity by one third by 2015, to make 90% of the population food secure by 2020, and to reduce child malnutrition by 1 percent annually. The NFSS is multi-sectoral and includes measures for restructuring the national budget, promoting rapid economic growth, improving risk management, investing in agricultural

development and natural resource management, strengthening service delivery particularly for health, family planning, nutrition, and promoting women's empowerment. Because of the prevalence of food insecurity in rural areas, and the strong linkages between agricultural production and food security, a large part of the implementation of the NFSS is through the investment program for agriculture. In particular, the agricultural sector is to contribute to several key elements of the action plan, including goals to: (a) increase incomes through higher productivity and development of value chains; (b) promote high value alternatives to Qat; (c) improve targeting of public investments and improved service provision for agriculture and poverty-reducing rural development; and (d) promote women's empowerment through better access to agricultural assets and services.

- 53. <u>National Agriculture Sector Strategy</u>: To tackle the persistent challenges of the Yemeni agriculture sector, the Government adopted in March 2012 a National Agriculture Sector Strategy (NASS) for 2012-2016. In line with the overall objectives of the NFSS, the NASS aims to increase growth, sustainability, and equity by raising agricultural output, and to increase rural incomes, particularly for the poor. Four specific goals are outlined: i) increase domestic food production through improving input supply, increased farmer awareness, and greater availability of agricultural credit; ii) fight rural poverty through increasing income of farmers, especially women, and continued promotion of rural development; iii) preservation of the environment and natural resources, and activating the role of community participation to ensure sustainability; and iv) improving market efficiency, lessening post-harvest losses and developing the capacity to export.
- 54. <u>NASS update (2013-2017)</u>: Completed in 2013 and provides for new emphasis in production on: (a) improving productivity in rainfed agriculture; (b) more efficient agricultural water management; (c) an increased recognition of the role of rural women in meeting food needs, improving nutrition and protecting the environment; (d) a strong focus on improving productivity and sustainability of livestock production (as livestock is the principal asset and economic activity of the poorest and landless); and (e) diversification of cropping patterns into new or revived cash crops and into more nutritious foods. The NASS update also promotes for a new institutional emphasis on: (a) demand-driven and participatory approach factoring in the needs and views of the farmers, particularly the poorest from the bottom up, (b) a decentralized approach; (c) increased reliance on the private sector and on public/private partnerships wherever feasible, and (d) efficient use of scarce public finances. The NASS update is also consistent with the National Water Sector Strategy and Investment Program (NWSSIP, 2008-2015) which has its goal for agricultural water to maintain a profitable, economically efficient, equitable and sustainable agriculture.
- 55. <u>National Water Sector Strategy and Investment Program (NWSSIP)</u>: The Government of Yemen is aware of the challenge that the country's water problems pose for water supplies and achieving food security and has taken some significant institutional steps over the past years. Strategic planning began in the early 1990s. In 1996, the National Water Resources Authority (NWRA) was created to implement an integrated approach. A water law was enacted in 2002, and in 2003 the Ministry of Water and Environment

(MWE) was established. MWE prepared a consolidated strategy, action plan, and an investment Program 2005-2009 (NWSSIP), adopted and published by the government in 2004. In late 2007, the government decided to prepare an update on NWSSIP 2009-2015 to adjust policy and program measures, and particularly focus on incorporating irrigation more fully into an integrated water resources management and regulatory framework.

- 56. The National Water Sector Strategy and Investment Program (NWSSIP) update for 2009-2015, prepared by the MWE, was formulated to deal comprehensively with the water sector related issues. It also addressed discrepancies in the sub-sector (water resources, Urban Water Sector Support (WSS), rural WSS and irrigation) in order to harmonize and promote the interests of all the stakeholders. The objectives of the NWSSIP are to:
 - Ensure coordination among all partners working in urban and rural water supply and sanitation sub-sectors, within and outside the MWE.
 - Ascertain thatpolicies in each of these two sub-sectors are unified and that investments are equitably allocated among governorates according to unified rules and that no projects are duplicated, especially in rural areas, to ensure that investments complement each other.
 - Ascertain integration of water policies and national policies of sustainable growth and poverty reduction.
 - **4** Ensure that sector financing effectively supports sector goals.
 - Monitor and evaluate performance.
- 57. The FSRRP has made provisions in the implementation and achievement of the above policy objectives in the framework of the concept of comprehensive and integrated development for the improvement of agricultural production and achieving food security along with poverty reduction.

3.2 Policy, Legal, and Institutional Framework

58. This section discusses and summarizes the provisions of Government of Yemen's key policy, legal and institutional framework for environmental and social management in Yemen in relation to the project and indicates how this ESMF complies with these requirements. The section also discusses other international policies/standards/regulations on environmental and social dimensions as well as both FAO and WB Environmental and Social Safeguards Standards in terms of compliance and concurrence.

Multilateral Environmental and Social Treaties

59. The Yemeni Government is a signatory to several internationally binding multilateral environmental and social agreements. Among the international commitments, conventions and agreements, the following protocols on agriculture, biodiversity, and natural resources; oceans and seas; hazardous materials and chemicals; atmosphere and

air pollution; and health and workers' safety are relevant to the project activities. Table 4, below, provides a summary.

Conventions / Agreements	Date of adoption or				
	ratification				
Climate and Atmosphere					
The Montreal Protocol on Substances that Deplete the Ozone Layer and its amendments	16 September 1987				
United-Nations Framework Convention on Climate Change (UNFCCC)	30 June 30, 1994				
Stockholm Convention on Persistent Organic Pollutants (i.e. a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife).	5 December 2001 9 January 2004				
Vienna Convention for the Protection of the Ozone Layer	19 December 1994				
Kyoto Protocol to the UNFCC	11 December 1997; 16 February 2005				
Civil Responsibility for Damage from Oil Pollution,	14 April 1979				
Paris Agreement	22 April 2016; 4 November 2016				
Land and Physical Cultural Resource	S				
The Convention on the Protection of World Cultural and Natural Heritage	14 September 1982				
Biodiversity and Natural Habitats					
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	3 March 1973; 22 June 1979				
Convention on Biological Diversity (CBD)	1 December 2005				
Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitats	24 January 2000				
Convention on the Conservation of Migratory Species of Wild Animals (CMS) à (P#100)	1 December 2006				
Others: Environmental Modification, Hazardous Wastes, Law of the Sea, the Rio Declaration on Environment and Development, The Universal Declaration of Human Rights, and The International Labour Organization (ILO) Conventions. Source: CATS – October 2020					

Table 4: Applicable and Legally Binding International Agreements

Source: CATS – October 2020

National Regulatory and Legal Framework for the E&S applicable to the Project

60. Several policies, strategies, and plans developed in the past by Yemen are relevant for the proposed project. These are presented below for context, noting that in the current conflict situation they are overall dormant. The project design has been well-informed by these policies.

Environmental and Social Policy, Strategies and Law in Yemen

- 61. The environmental and social related polices and laws in Yemen include inter alia: the Environment Protection Law (EPL) Number 26 of 1995, forming the basis for environmental protection, issuance of permits, and environmental and social impact assessments (ESIAs). The provisions of this law are implemented through Executive Regulations (by-Law 148-2000), issued by a decree of the Council of Ministers to protect the environment, natural resources, society, and health. In addition, the law is designed to protect the national environment from activities practiced beyond national boundaries and to implement international commitments ratified by the Republic of Yemen in relation to environmental protection, control of pollution, conservation of natural resources, and such globally important environmental and social issues, such as ozone layer depletion and climate change.
- 62. The law equally stipulates the incorporation of environmental and social considerations in economic development plans at all levels and stages of planning for all sectors. It also requires the preparation of ESIAs for projects proposed by the public and private sectors. However, to date there is still no regulatory framework to support the implementation of the EPL and the provision of undertaking ESIAs for projects is not strictly enforced. ESIA studies should be undertaken by an independent authority.
- 63. Equally important, environmental standards and specifications have been prepared by the former Environment Protection Council as annexes to the Executive Regulations, covering potable water quality, wastewater quality for agriculture, and ambient air quality, emissions, noise, biodiversity and protected areas. These include standard application forms intended for use by all relevant government bodies. Also, there are other policies, strategies, and programs in Yemen to safeguard the broader Environment (physical and natural). The list of these policies, strategies and programs are:
 - National Environmental Action Plan;
 - Environment & Sustainable Investment Program;
 - Biodiversity Strategy;
 - Environmental (and Social) Impact Assessment Policy for the Republic of Yemen;
 - Reports on the State of Environment (by Environment Protection Authority [EPA]);
 - Evaluation of Future Development of the EIA System in Yemen etc.;
 - National environmental and social laws and regulations, and the operating procedures of SWF;
 - The 1990 Reunification Constitution of Yemen;
 - Labor Law, Act No.5 of 1995, includes Occupational Health and Safety (OHS) requirements for workplaces that need to be applied in the project. It states that women are equal to men in all aspects without any discrimination, and that equality should be maintained between women and men workers in recruitment, promotion, wages, training, social insurance. It also regulates work time for pregnant women. The law regulates the rights and wages of workers, their protection, and occupational health and safety. In addition, the supplementary Social Insurance Law regulates retirement compensation.

- Yemen has ratified ILO Convention Number 138 on Minimum Age for Admission to Employment (Law 7/2001). The Convention establishes a minimum age for admission to employment.
- Yemen has also ratified the ILO Convention 182 on the Worst Forms of Child Labor. It refers to child labor as work that is mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling by depriving them of the opportunity to attend school, by obliging them to leave school prematurely; or by requiring them to attempt to combine school attendance with excessively long and heavy work.
- 64. **Pesticide Law in Yemen:** The Pesticides Law was decreed in 1999 (Law No. 25 of 1999) and includes seven chapters and 36 articles. Executive regulations for enforcement are to be issued by resolution of the Minister of Agriculture and Irrigation. A registration guide and executive regulations were prepared to facilitate enforcement. Penalties for violations are stated. The law's objectives are to regulate the handling, registration, and inspection of pesticides and to avoid the poisonous effects on humans, and animals, the environment, and economically beneficial insects. The competent authority for enforcing the law is the General Directorate of Plant Protection (GDPP) of the MoAI, and the Directorate is to coordinate its work with the EPA. The Pesticides Law provides the national legal basis for the application of the World Bank's ESS 3: Resource Efficiency and Pollution Prevention and Management. The list of prohibited and smuggled pesticide in Yemen is attached in Annex 2.
- 65. To better control the quality of imported pesticides, the government established the "Pesticides Formulation Laboratory". In 1999, Parliament approved the Agricultural Pesticides Act. Procurement of pesticides is envisaged under the project. Precautions to avoid excessive and improper pesticide use are required. A mechanism will be put in place to demonstrate Integrated Pest Management procedures and to develop a farmer education program that stresses good and safe practices for storage and application of pesticides.
- 66. Water Law: The Water Law was issued in 2002 (Law No. 33 of 2002) and modified in 2006 after the creation of Ministry of Water and Environment (MWE). Its by-law was issued in 2011 by the Cabinet decree. The law defines water resources as any water available in the republic's territory and its share of common waters jointly owned with neighbouring countries. This is comprised of ground water, surface water, wastewater after purification, and saline water after desalination. The law's main objective is to regulate, develop, sustain and increase efficiencies in water utilization, protect from pollution, transport, and engage the beneficiaries of water installations in participatory management, investment, development, operation, maintenance and preservation at the various stages of development. In Yemen,water is considered a common property accessible to all.
- 67. Management of water resources is entrusted to the National Water Resources Authority (NWRA), which assesses the resources, classifies water basins and zones, and prepares the national water plan, which is considered as one of the components of national

economic and social planning. Drinking water and domestic use have absolute priority. Then in declining priority, watering livestock, public utilities, irrigation, industrial purposes, minimal level of environmental needs. For these uses, water distribution and transport should be done according to sanitary means.

- 68. The responsibility of sustainable water management in the irrigation sector and the setting up of operation and maintenance of irrigation structures is delegated to the Ministry of Agriculture and Irrigation (MAI). Moreover, MAI should provide protection from floods, soil and wadi banks erosion, maintain agricultural terraces and prevent the expansion of industrial or other infrastructure at the expense of wadi or rainwater runoff channels. Existing and acquired water rights prior to the issuance of the law will be maintained, except in exceptional cases when fair compensation will be ensured. Traditional water rights of rainwater harvesting and natural runoff flow in relation to irrigation shall be maintained. The same applies for the traditional rights on natural springs, streams, and creeks. The Water Law and its by-law are a notable achievement in Yemeni legislation and provide important legislation for environmental and social management of the project activities pertaining to agricultural production.
- 69. **Cooperatives Societies and Unions Law (Law No. 39 of 1998):** Law 39 of 1998 relates to Cooperative Societies and Unions, the organizational and legal reference for all cooperatives and cooperative unions in the Republic of Yemen. This law is relevant to the project since it addresses community mobilization and engagement in terms of collective actions that would lead to better community involvement in the design, implementation and operationalization and maintenance of the coping measures and the income generation activities.
- 70. Law no. 39 of 1998 grants a relevant Ministry and its departments and branches in the governorates the right to supervise and assure compliance with relevant laws and provide advice and technical assistance to the cooperatives to plan their activities as well as to attend their General Assembly meetings. It defines five specific types of cooperatives. Any other type of cooperative, such as the Agricultural Cooperative Union (ACU) and its branches in the country can be created according to the provision of Article 142, which states that it is lawful to establish other cooperative societies, according to provision of this Law, in other services. More specifically, Article 142 stipulates that a decree of establishment under appropriate line Ministry shall be developed and forwarded to the Ministry of Social Affairs and Labor for approval and issuance.
- 71. Water User Associations (WUAs) which were supported by water law are eligible under law 39 of 1998. These associations have the privileges granted to it by law, as well as the support of the Water Law.

3.3 World Bank's Environmental and Social Policy Application

72.

73. Given that project activities and subproject locations cannot be identified by appraisal, an Environmental and Social Management Framework (ESMF), Environmental and Social Commitment Plan (ESCP), Labour Management Plan (LMP), Stakeholder Engagement Plan (SEP), Resettlement Policy Framework (RPF), Pesticide Management Plan (PMP), and Security Management Plan (SMP), have been prepared. Given the emergency context, the ESCP and SEP were prepared and disclosed for comment and review prior to the appraisal stage and World Bank Board approval, with the other safeguards instruments being prepared afterward and as stipulated in the ESCP. The scope and application of the ESSs are discussed below.

Environment and Social Standards (ESSs) Relevant to the Project

- 74. Based on the World Bank Environmental and Social Framework and the E&S screening conducted for this project, all environmental and social standards are relevant to the project with the exception of ESS7 (Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities), ESS8 (Cultural Heritage), and ESS9 (Financial Intermediaries). The World Bank's Environment and Social Framework (ESF) stipulates that all World Bank-financed investment projects must meet the ten environmental and social standards which were designed to avoid, minimize, reduce, or mitigate adverse environmental and social risks and impacts of projects. The ESSs include:
 - ESS1: Assessment and Management of Environmental and Social Risks and Impacts;
 - ESS2: Labor and Working Conditions;
 - ESS3: Resource Efficiency and Pollution Prevention and Management;
 - ESS4: Community Health and Safety;
 - ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
 - ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
 - ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
 - ESS8: Cultural Heritage;
 - ESS9: Financial Intermediaries; and
 - **4** ESS10: Stakeholder Engagement and Information.
- 75. In addition to the ten World Bank ESS, the project has been screened against the FAO Environmental and Social Safeguards, which correlate and align with World Bank standards as depicted in Table 5, below:

Table 5: Alignment of World Bank and FAO Environmental and Social Safeguards

WB Environmental and Social Framework –	FAO Environmental and Social
Environmental & Social Standards (ESS)	Safeguards (ESS)
ESS1 – Assessment & Management of Environmental	ESS1 – Natural Resources
and Social Risks & Impacts	Management
ESS9 – Financial Intermediaries	ESS8 – Gender Equality
ESS10 – Stakeholder Engagement and Information	
Disclosure	

WB Environmental and Social Framework – Environmental & Social Standards (ESS)	FAO Environmental and Social Safeguards (ESS)
ESS2 – Labour and Working Conditions	ESS7 – Decent Work
ESS3 – Resource Efficiency and Pollution Prevention & Management	ESS5 – Pest and Pesticide Management
ESS4 – Community Health and Safety	ESS7 – Decent Work (partially)
ESS5 – Land Acquisition, Restriction on Land Use and Involuntary Resettlement ESS10 – Stakeholder Engagement and Information Disclosure	ESS6 – Involuntary Resettlement and Displacement
ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS2 – Biodiversity, Ecosystems, and Natural Habitats ESS3 – Plant Genetic Resources for Food & Agriculture ESS4 – Animal – Livestock and Aquatic Genetic Resources for Food and Agriculture
ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities ESS8 – Cultural Heritage	ESS9 – Indigenous Peoples and Cultural Heritage

76. Alignment of the World Bank and WFP Environmental and Social Safeguards are also displayed in **Figure 1**.

Figure 1: Alignment of World Bank and WFP Environmental and Social Safeguards

World Bank - Environmental and Social Standards

- ESS 1: Assessment and Management of Environmental and Social Risks and Impacts;
- ESS 2: Labor and Working Conditions;
- ESS 3: Resource Efficiency and Pollution Prevention and Management;
- ESS 4: Community Health and Safety;
- ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
- ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
- ESS 8: Cultural Heritage;
- ESS 9: Financial Intermediaries; and
- **ESS 10:** Stake-holder Engagement and Information Disclosure .

WFP - Environmental and Social Standards

- ESS 1: Sustainable Natural Resources Management (ESS 1, ESS 3, ESS 6)
- ESS 2: Biodiversity and Ecosystems (ESS 1, ESS 3, ESS 6)
- ESS 3: Resource Efficiency, and Waste and Pollution Management (ESS 3, ESS 6)
- ESS 4: Climate Change (ESS 3, ESS 6)
- ESS 5: Protection and Human Rights (ESS 2, ESS 4, ESS 8)
- ESS 6: Gender Equality (ESS 2, ESS 4, ESS 5, ESS 8, ESS 10)
- ESS 7: Community Health, Safety and Security (ESS 4, ESS 5, ESS 7, ESS 8)

WFP

• ESS 8: Accountability to Affected Populations (ESS 9, ESS 10)

77. For simplicity, this chapter discusses the project screening and relevance of standards in relation to the World Bank ESF. **Table 6** provides a summary of the relevant standards, and the paragraphs following provide details on the extent to which each standard is relevant based on the project design.

Table 6: Relevant Environmental and Social Standards

WB Environmental and Social Framework – Environmental & Social Standards (ESS)	Relevant (Y/N)
ESS1 – Assessment & Management of Environmental and Social Risks & Impacts	Y
ESS2 – Labour and Working Conditions	Y
ESS3 – Resource Efficiency and Pollution Prevention & Management	Y
ESS4 – Community Health and Safety	Y
ESS5 – Land Acquisition, Restriction on Land Use and Involuntary Resettlement	Y
ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	Y
ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Ν
ESS8 – Cultural Heritage	N
ESS9 – Financial Intermediaries	Ν
ESS10 – Stakeholder Engagement and Information Disclosure	Y

ESS1: Assessment and Management of Environmental and Social Risks and Impacts

- 78. ESS1 requires the project and subproject owners to be responsible for assessing, managing, and monitoring E&S risks and impacts associated with each stage of a project/subproject supported by the World Bank to achieve E&S outcomes consistent with the ESSs. It requires a description of the project area as well as an assessment of potential positive and negative impacts. The Environmental and Social Assessment (ESA) and proposed mitigation measures detailed in Section IV of this ESMF are proportional to the risk levels of project activities and subprojects. Subprojects and activities under the project will support cash-for-work opportunities, increased food security, and improved nutrition. Some of these investments will include technical and material assistance for changed practices in primary production; small-to-medium-scale infrastructure works; equipment and inputs provision for identified households; and capacity building.
- 79. The project is largely expected to bring about significant positive impacts to the project areas. Moreover, the project is not anticipating any significant threats against biodiversity and habitats and does not involve the introduction of alien or nonnative species in the project areas. No adverse or irreversible impacts are expected on cultural heritage. Nonetheless, the project has been given a substantial risk rating, both environmentally and socially, given the following:
 - Exposure of project workers and communities to health and safety risks, including serious injury and/or transmission of diseases like COVID-19, during the implementation of works under Component 1 (Cash for Work) if project activities¹¹ are not adequately managed. This is anticipated as the project will provide temporary work opportunities to local community members who are unskilled, largely illiterate, and with little or no knowledge or experience in applying OHS measures. This ESMF details potential mitigation measures, as will subproject-specific ESMPs. Labour-related risks are covered more specifically within the LMP.
 - Challenges to ensure that project services and benefits can reach all segments of the targeted beneficiaries in a transparent, equitable, and inclusive manner, particularly for disadvantaged and vulnerable individuals and groups, and the potential conflict which may arise among local communities, interested groups, and factions over the sharing and distribution of project benefits. To address this, FAO, UNDP and WFP will take these into consideration in selecting and designing subcomponent investment activities and conducting stakeholder engagement. They will also follow the jointly prepared SMP and work closely with their implementing partners (SFD, PWP, SMEPS) to define key selection criteria for target areas and provide a participatory, inclusive, and transparent mechanism

¹¹ The rehabilitation works under the cash for work program which will support the rehabilitation and maintenance of terraces, on-farm water harvesting facilities (underground cisterns and open wadi pits), watershed management/rainwater harvesting structures in mountainous areas (check dikes and gabions/retaining walls in wadi beds), spate irrigation works in lower mountains and foot-hills (small spate diversion canals, shallow wells, and springs), irrigation canals and farm-level conveyance systems, rehabilitation of small rural access roads to isolated villages/communities.

to identify and target beneficiaries based on clear eligibility criteria. The SEP is intended to support inclusivity and ensure equitable distribution of benefits.

- Minor, localized, and mitigatable negative impacts pertaining to the small infrastructural works under Component 1 and the installation of hydroponic & aquaponics under Component 4, including noise, generation of dust and solid wastes, water use increase, and energy demand increase. Some of these impacts are also expected during the operation phase as well. Mitigation options for these minor impacts are provided in this ESMF and would be covered under each subproject-specific ESMP.
- Potential increase in the use of pesticides and fertilizers due to the rehabilitation of terraces under component 1 as well as the operation of hydroponics and aquaponics under component 4, thus a PMP has been prepared to mitigate potential negative impacts.
- Security risks due to the ongoing conflict. Considering the high-security risks in Yemen, the SMP defines how project workers and equipment are secured.
- 80. The environmental and social assessment (ESA) requirement under ESS1 is covered within this ESMF, which examines the risks and impacts associated with the project. This ESMF has defined screening mechanisms and monitoring procedures for the identification and management of potential adverse environmental and social impacts and provides a grievance redress mechanism with guidance on the reception, recording, handling, and reporting of complaints that may be encountered during project implementation. Further details can be found in the project SEP.
- 81. During implementation, all subprojects or activities will be screened in accordance with the guidelines and requirements set forth in this ESMF. The results of the screening will identify the risks that the subprojects will pose, differentiated as: high, substantial, moderate, or low. For any of the identified high-risk subprojects, an ESIA would be required, while a simple ESA would be done for substantial and moderate risk subprojects. These subprojects will prepare and implement proportionate ESMPs and Environmental Codes of Practice (ECOP) when appropriate. The subsequent ESMP will consist of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project in order to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The project implementing agency will: (a) identify a set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe and report the means for meeting those requirements.
- 82. As a substantial-risk project, all subprojects shall be consistent and adhere to the country's national environmental and social standards, as well as the ESSs of the World and implementing agencies. In instances where gaps are evident, the more stringent

policy is followed. Gaps are detailed in Section 3.4 of this ESMF and are provided in detail in Annex 1.

ESS2: Labor and Working Conditions

- 83. ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Project/subproject owners can promote sound worker-management relationships and enhance the development benefits of a project by treating workers fairly and providing safe and healthy working conditions. Based on the current FSRRP design, some activities will require the hiring of: (i) direct workers (e.g. implementing partners' staff and consultants); (ii) contracted workers for construction and rehabilitation work and/or similar work related to the core functions of the project (including contractors who in turn employ workers/labour based on daily wages to perform skilled field-related works, IT-related works, and/or trainingrelated works); (iii) community workers recruited by the contractor or SFD for Cash for Work activities within the communities (with at least 50% of contracted workers coming from the local community) and/or Community Health Volunteers (CHVs) to provide nutrition services under sub-component 3.3.. The impacts and risks of this could include the possible use of child labor and forced labor, discriminatory practices in recruitment, occupational health, and safety issues and GBV/SEA risks, as well as possible conflicts with local communities.
- 84. To be consistent with the ESS2 requirement, and as part of the ESA, a Labor Management Plan was prepared and will be incorporated within a given subproject's Environmental and Social Management Plan (ESMP), to be implemented during the project. The LMP clarifies how subproject workers will be managed in accordance with requirements of both the national laws and ESS2, including management to reduce risk of transmission of infectious diseases like COVID-19 and/or HIV-AIDs. As part of ESS2 and the LMP, a separate GM will be available for workers.

ESS3: Resource Efficiency and Pollution Prevention and Management

85. ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services, and the environment at the local, regional, and global levels. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle. Significant use of materials and resources (including water) are not expected under the project, nor is generation of significant amounts of GHG emissions from construction and operations. Nonetheless, given that the activities involve smaller infrastructural works and primary producers, the risks and impacts related to the release of pollutants, construction debris, solid waste generation, the management of chemical fertilizers, pesticides and hazardous wastes, impact on community, and resource use efficiency will be assessed for each subproject, and proportional mitigation measures will be incorporated within the related ESMPs.

- 86. ESS3 is relevant. The project will support the rehabilitation of terraces and the construction of hydroponics which might lead to increasing the use of pesticides and fertilizers, yet the project will not support the purchase of such chemicals and it will discourage their use through dissemination of alternative techniques and general information on the risks incurred if they are used. Pesticide toxicity and misuse could potentially lead to pollution of soil, water, air, and cause harm to non-target organisms, as well as negative impacts on health and safety, particularly of farmers or those who apply pesticides. To mitigate such risks, FAO has prepared a stand-alone Pest Management Plan including a screening procedure to determine if site-specific PMPs need to be prepared. The PMP includes, inter alia, measures for: (i) adequate transportation, storage, handling, and management of pesticides; (ii) management of stocks in an effective, efficient, and transparent way; (iii) suggested capacity building program that will be conducted to farmers for adequate storage, transportation, and management of pesticides; and (iv) disposal of unwanted or surplus pesticides and waste resulting from applying pesticides and for any COVID-related material.
- 87. Given the nature and scale of the physical interventions foreseen under the project, it is not expected to make significant use of resources such as water, energy, and raw materials. In addition, it is not expected that activities supported under the project will significantly generate pollution. However, this ESMF proposes guidelines to assess the potential cumulative impacts of water use upon communities, other users, and the environment. The Climate Smart Agriculture approach guides the relevant mitigation measures. With regard to hydroponics, the implementing agency will adopt measures specified in the World Bank Environmental, Health, and Safety Guidelines (EHS Guidelines)¹² to optimize energy usage. This ESMF and subsequent site-specific ESMPs identify measures required to ensure efficient use of water and energy, as well as proper disposal of wastes associated with activities such as debris and other residues from rehabilitation, works under Component 1, and construction works of hydroponics and aquaponics under Component 4. Waste generated by these activities will be disposed of at approved sites according to with the national laws and regulations. The site-specific ESMP outlined will include mitigation measures to minimize and manage the noise levels by applying standard restrictions to hours of site work. It is also mentionable that Component 1 will support cash-for-work interventions which will support farmers for the rehabilitation of water resources which will improve resource management (i.e. water in targeted areas which will involve positive outcomes in line with the objectives of ESS3).

ESS4: Community Health and Safety

88. ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of subproject owners to avoid or minimize such risks and impacts, with particular attention to people who, because of their specific circumstances, may be vulnerable. The project participants might be at risk

¹² The World Bank Group EHS Guidelines can be found at the following URL: <u>https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p</u>

or exposed to Gender Based Violence (GBV) or Sexual Exploitation and Abuse (SEA) during the implementation of the project. A GBV risk assessment and/or a gender analysis will be conducted for sub-project areas and a GBV action plan for those areas will be developed prior to sub-project implementation. The GBV action plan will include: (i) a specific grievance redress mechanism related to cases of GBV and SEA (including an established referral pathway to refer GBV/SEA cases to specialized agencies); and (ii) community-level awareness sessions on GBV/PSEA to be conducted for participants and their communities to ensure the protection and safety of participants. The project-level GBV action plan is presented in Annex 4 of this ESMF. Measures to limit the spread of COVID-19 within communities are included in the generic ESMP template annexed in the ESMF.

- 89. The project also has security risks due to the current conflict and security situation in Yemen. To mitigate these social risks, FAO, UNDP, and WFP jointly prepared a security management plan (SMP) and are working closely with SFD, PWP, and SMEPS to define key selection criteria for target areas criteria which form part of the stakeholder engagement process, including the disclosure of public information and project-related outreach.
- 90. For risks related to the construction of small infrastructure which community members may be involved with, standard measures from the World Bank Group EHS Guidelines are incorporated under Section IV of this ESMF and must be adhered to/implemented during the construction and operation of any project-financed infrastructure. These include measures related to general facility design and operation, communication and training, various physical and chemical hazards, personal protection (e.g. wearing of personal protective equipment), and monitoring. Measures, based on national and international guidelines for the reduction of Covid-19 transmission, are also included in Section IV of this ESMF. If an E&S screening for a subproject indicates further risks than those listed under Section IV of this ESMF, then the subproject would be subject to a more detailed ESIA and the subsequent ESMP must incorporate additional mitigation measures proportionate to those risks.

ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This ESS recognizes adverse impact for project/subproject on local peoples, especially those considered to be vulnerable or disadvantaged. The proposed interventions in farmland and irrigation works under Component 1 include rehabilitation, maintenance, and small construction activities. They are all planned to take place within their existing footprints and are expected to be quite small in scale. An exclusion list has been included in Annex 3 of this ESMF to avoid permanent, large-scale land acquisition or resettlement are not anticipated under the project at this stage. For possible unanticipated needs of a small amount of land taking, a Resettlement Framework proportional to expected risks and impacts has been prepared to guide planning for such eventualities.

ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

- 91. ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. ESS6 also addresses sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples whose access to, or use of, biodiversity or living natural resources may be affected by a project.
- 92. The project's physical interventions will be limited to the existing rural centers. The proposed project activities are not anticipating any significant threats against biodiversity and habitats. The project does not intend to introduce alien or non-native species in the project areas of implementation. However, this ESMF proposes relevant measures which may improve the landscape where cash-for-work activities will be undertaken. The exclusion list in Annex 3 also helps to avoid any threats against natural habitats.

<u>ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local</u> <u>Communities</u>

93. As there are no communities falling under the ESS7 definition of Indigenous People/Sub-Saharan African Historically Underserved Traditional Local Communities, this standard is not considered relevant to the project.

ESS8: Cultural Heritage

94.

Given the nature, scale, and location of the Project, this ESS8 standard is not considered relevant to the project because no activities will be implemented in cultural heritage sites. Moreover, no cultural heritage impacts are expected under the project.

ESS9: Financial Intermediaries (FI)

95. ESS9 is not relevant to the project because no financial intermediaries are expected to be involved.

ESS10: Stakeholder Engagement and Information Disclosure

- 96. ESS10 recognizes the importance of open and transparent engagement between the project owner and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.
- 97. This project mainly supports on-going development programs in the country. Stakeholder engagement has been carried out in these areas to a varying extent and, based on these early experiences, a large number of stakeholders are anticipated to be engaged in the project, including public institutions, such as government agencies at the national and local level, FAO, UNDP, WFP and its project implementing partners, civil

society organizations, farmer organizations (including water user associations), and different groups of targeted project beneficiaries communities. The targeted beneficiaries could include farmers, pastoralists, agro-pastoralists, and fishing communities; agro-enterprise producers, processors, and traders; internally displaced people, field agricultural extension officers, animal health workers. Based on early sector experiences, vulnerable or disadvantaged groups may include but are not limited to, disadvantaged communities in certain parts of the country, households facing food insecurity and food shortages, female-headed and elderly-headed households, internally displaced persons, people with disabilities, extremely poor, and Illiterate persons.

- 98. Stakeholder engagement so far has predominantly been limited to consultations between the FAO, UNDP, WFP, SFD, PWP, and the MAI. The consultation focused on their respective findings on stakeholder needs, preferred methods of communication, and key obstacles based on their ongoing works within the potential project areas. A preliminary Stakeholder Engagement Plan was drafted and disclosed prior to project appraisal and has since been updated to further reflect comments and changes in the project design. The SEP draws from lessons learned from FAO and UNDP during the earlier SAPREP project and YECRP project from the ongoing projects like the Desert Locust Project and the lessons learned from WFP during the ongoing Education Project, as well as recommendations from the SFD and PWP's extensive on-ground network. Further stakeholder analysis and consultations will be carried out in the finalization of the project design and the SEP will be updated accordingly.
- 99. To address complaints or concerns related to project activities, the project utilizes the Grievance Mechanism (GM) of FAO UNDP and WFP in addition to the SFD and PWP GM. This GM is summarized in the SEP and within Section IX of this ESMF.

(b) Legal Operational Policies that Apply

- 100. Given that the project will not occur on in international waterways or in a way that may affect the relations between the World Bank, its clients, and riparian states, there is no need to consider *OP 7.50 Projects on International Waterways as relevant*. Likewise, there will be no project activities occurring in or around disputed areas, *OP 7.60 Projects in Disputed Areas* is not not considered relevant.
- 101. The WB policy on Access to Information¹³. The WB Access to Information Policy is intended to ensure that persons and groups affected by the project are kept informed of the project objectives and impacts and are consulted throughout project preparation and implementation to ensure that their interests are represented. E&S documents are disclosed locally in the project areas and the WB's external website offering access to information on WB projects and programs to the public.

¹³ Detail of World Bank Policy o Access to information is available at <u>http://www.worldbank.org/en/access-to-information</u>

- 102. World Bank policy requires governments to conduct meaningful consultations with stakeholders such as project-affected groups and local NGOs about the project's environmental and social aspects and takes their views into account in the design of the project. All draft E&S instruments have been disclosed locally in an accessible place via the websites of the implementing agencies and/or implementation partners and in a form and language understandable to key stakeholders, and in English at the WB's external website before the project appraisal.
- 103. World Bank Group Environmental, Health, and Safety Guidelines¹⁴. The WBfinanced projects should also take into account the WB Group's Environmental, Health, and Safety Guidelines (known as the "EHS Guidelines")¹⁵. The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). It contains the performance levels and measures that are normally acceptable to the WB Group and are generally considered to be achievable in new facilities at reasonable costs by existing technology. The EA process may recommend alternative (higher or lower) levels or measures, which, if acceptable to the WB, become project- or site-specific requirements. The EHS Guidelines apply to the Project and shall be incorporated into the Environmental Codes of Practice (ECOP) included in the contract.

3.4 Gap Analysis and Gap Filling Measures

- 104. The World Bank classifies projects and subprojects into one of four classifications: *high risk, substantial risk, moderate risk* or *low risk* and discloses a project's risk classification and basis for that classification in project documents and on the World Bank website.
- 105. Based on the project's substantial risk rating both environmentally and socially, the project will apply the more stringent of regulations. Specifically, whilst national regulations are adequate for some of the investments, additional gap-filling measures will be used for others so that they can adequately address issues related to contract management, safety of local communities, and workers. Capacity building efforts pertaining to regulation and oversight are also incorporated to help bridge the regulation/enforcement gaps between national practice and World Bank and FAO standards. A detailed overview of the gaps and recommended actions are available in Annex 1, which highlights the differences between the World Bank's ESF and the national legislation.

IV. ENVIRONMENT AND SOCIAL BASELINE

¹⁴ The EHS Guidelines can be consulted at https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM

¹⁵ https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_policy_ehs-general

4.1 Country-Wide Social Demographics

- 106. **Language:** Modern, standard Arabic is the official language of Yemen, whilst at least five other dialects of Arabic are spoken in the country (Sanaani, Ta'Izzi-Adeni, Hadrami, Gulf Arabic, and Judeo-Yemeni). Approximately 7.6 million people speak Sanaani in the East, West and central regions of Yemen, whilst approximately 6.76 million people speak Ta'Izzi-Adeni in the southern parts of the country. Around 300,000 people speak Hadrami in Shabwah and Hadramawt governorates. Approximately 10,000 people speak Gulf Arabic, and only 1000 people speak Judeo-Yemeni. Judeo-Yemeni is spoken by Jewish communities in Sana'a, Shabwah, Al Bayda and Aden, whilst Sanaani, Ta'Izzi-Adeni and Hadrami are considered Muslim languages.¹⁶ About 60,000 people speak Mehri in desert areas near the Oman boarder, and approximately 80,000 speak Soqotri on the island of Socotra.¹⁷
- 107. **Religion:** About 99.1% of Yemen's population is Muslim, while Jews, Baha'i, Christians, and Hindus make up the remaining 0.9%.¹⁸ Of the Muslim majority, approximately 65% identify as Shafi' Sunni' while 35 percent are Zaydi Shia.¹⁹
- 108. **Land tenure:** Yemen's cultivated land approximately divided between 1.2 million landholders with 62% of these landholdings less than 2 hectares, and 4% at least 10 hectares or more.²⁰ Yemen's property rights are informed by Islamic Shari'a Law and are written under the Law of Land and Real Estate No. 21 of 1995, which forms the basis of land categorization, however in a country with many different authorities in different regions, legal pluralism is the reality.²¹ Sheikhs, or traditional authorities, uphold governance in many rural areas and play an important role in decision making regarding property rights in local contexts.
- 109. Yemen's land tenure system is categorized into five main forms of property. The first is government land, which is estimated to be 90% of all land in Yemen, but only 10% of cultivated land. Second is privately owned property which accounts for approximately 85% of all cultivated land, yet only 10% of total land area in Yemen. Third are religious endowments, otherwise known as Waqfs. Waqfs can serve important social purposes such as providing land access to the public, the poor and tenant farmers, and consists of 3-4% of Yemen's land. Fourth is communal land, which tribal communities claim to own yet the government claims as state land. Fifth is land tenancy, which also covers 3-4% of Yemen's land area and takes place on government, private and Waqf land.²²

¹⁶ https://www.worldatlas.com/articles/what-languages-are-spoken-in-yemen.html

¹⁷ https://www.land-links.org/country-profile/yemen/#land

¹⁸https://www.cia.gov/the-world-factbook/countries/yemen/ ¹⁹ Idem.

²⁰ https://www.land-links.org/country-profile/yemen/#land

²¹ https://carnegieendowment.org/files/yemen_tribal_governance.pdf

²²https://documents1.worldbank.org/curated/en/901231468347330974/pdf/549230ESW0P1020l0land0tenu re109June.pdf

- 110. Approximately 80% of disputes in Yemen are related to land because the government does not have a system for authenticating title deeds and land documents, whether formal or customary.^{23,24} At least 70% of these disputes are settled with Sheikhs, as opposed to using the country's legal and court system.²⁵ About 90% of all conflicts are prevented or resolved through customary law systems. State and rule of law institutions are considered weak and largely ineffective outside of Yemen's main cities and are often not trusted in rural areas. Yemen's tribes provide social order outside of the formal system and are known to successfully prevent and resolve conflicts over resources, development services and land. Sheikhs are accountable to their community to resolve conflict and safeguard their tribes' interests.²⁶
- 111. Law No. 39 of 1991 requires that land be registered, however, mainly urban land is registered under formal law while rural land is documented under land title documents (basira) or land inheritance certificate (fasl) prepared by a sheikh or amin. Land registration in the formal system is considered inefficient, time-consuming and overall untrustworthy. Only about 10-20% of Yemen's land is registered in the formal system while the rest is under basira or informal documentation. However, as mentioned above there is no mechanism in place in the formal system with which to authenticate either formal or informal land deeds and no national cadaster exists which creates space for land fraud.²⁷ This is also a problem regarding state owned land as the state has no reliable records of documents or inventory of state-owned lands, land grabs are common.²⁸
- 112. Land tenure is an important means of access to land for many Yemenis, especially for poor and marginalized groups, yet owner cultivation is still predominant. In much of the highlands, a system of share tenancy operates where a landowner contributes the land and labour and the crop is shared between the landowner and tenant according to a traditional system of distribution. This system of distribution can vary from area to area and is common in highland regions, even though the practice is slowly decreasing as other employment options become available. Fixed rents are more common on Waqf land and larger, irrigated low-land holdings.²⁹
- 113. Land reclamation by tenant farmers is also considered in land tenure agreements. It is common for a tenant that has reclaimed uncultivated or rangelands to keep a greater share of the harvest, or possibly all of the harvest, for several years in order to recover the cost of land reclamation. This is also common for tenants who shift

²³ https://www.land-links.org/country-profile/yemen/#land

²⁴<u>https://documents1.worldbank.org/curated/en/901231468347330974/pdf/549230ESW0P1020I0land0tenu</u> re109June.pdf

²⁵ https://www.land-links.org/country-profile/yemen/#land

²⁶ https://carnegieendowment.org/files/yemen_tribal_governance.pdf

²⁷ https://www.land-links.org/country-profile/yemen/#land

²⁸https://openknowledge.worldbank.org/bitstream/handle/10986/12298/549230ESW0P1020l0land0tenure1 09June.pdf?sequence=1&isAllowed=y

²⁹https://documents1.worldbank.org/curated/en/901231468347330974/pdf/549230ESW0P1020l0land0tenu re109June.pdf

production to qat. If a landowner wishes to terminate a tenancy after land reclamation or qat planting, the landowner will pay the tenant the market value of the improved land. However, if the landowner provided capital for improvement, the landowner will pay half the market value.³⁰

- 114. The land tenure system has long been considered stable in Yemen, with average tenancy agreements spanning between 30 and 50 years. Yet, as demand for cultivatable land increases, the power of landowners also increases as well as their bargaining power. Access to land for marginalized groups could decrease as demand for cultivatable land grows. Already, marginalized ethnic groups such as the Muhamasheen face large barriers to land access throughout the country.³¹
- 115. **Communal Land:** The state claims ultimate ownership of communal lands while the communities living on them exercise use and management rights. Law 21 of 1995 states that all communal lands are owned by the state and that the state must manage land in the interest of people and communities. However, most communal land holdings are governed under customary law by tribes even though they are legally owned by the state.³² Under current law, much of what is considered tribal land by rural communities is communal land and is likely owned by the state, and thus there is considerable potential for conflict regarding these lands. Persons using state land have the right to usufruct, or utilize the land as they see fit short of destroying it, but many believe their rights extent to ownership.³³
- 116. This discrepancy in land ownership arose with the emergence of the People's Democratic Republic of Yemen in 1967, which led to the abolition of private property, including Law No. 11 of 1972 which expropriated tribal groups' landholdings. Prior to this law, tribal groups controlled and laid claim to large swathes of land in both the north and south. While conflict over landownership concerning communal state and tribal lands could be present throughout Yemen, it is especially known to be related to lands in and near Aden, Hudaydah and Mukalla. In Mukalla, the Al Akabra tribe has an ownership claim over most undeveloped land to the east of the city and has been engaged in ongoing disputes over ownership for many years.³⁴
- 117. **Women and Land:** Under formal law, women have a legal right to own, buy, and sell land in Yemen. However, customary law and traditional and religious practices prevail, and few women can realize their formal rights. Few women, including women heads of household, own land. In some regions, women must obtain the permission of their husband to buy or sell land, regardless of ownership. Under the Personal Status Law, women who are divorced must leave the family house.³⁵

³⁰ Ibid.

³¹ Ibid.

³² https://www.land-links.org/country-profile/yemen/#land

³³https://openknowledge.worldbank.org/bitstream/handle/10986/12298/549230ESW0P1020l0land0tenure1 09June.pdf?sequence=1&isAllowed=y

³⁴ Ibid.

³⁵ https://www.land-links.org/country-profile/yemen/#land

- 118. **Gender-Based Violence (GBV):** Gender inequality is recognized as one of the root causes underlaying food insecurity, malnutrition and poverty in Yemen. Since the beginning of the conflict in Yemen the gender dynamics changed, consequently, women and girls have become more marginalized. Increasing levels of gender-based violence have also been reported which could further reinforce gender inequality in the country.³⁶ Men and boys have also experienced higher levels of gender-based violence.³⁷
- 119. Women in Yemen face pervasive discrimination in both law and practice as a result of society's prescriptive gender constructs and norms. Women have limited access to political participation and representation, economic opportunities, educational opportunities and access to healthcare. They cannot marry without permission from their male guardian; do not have equal rights to divorce, inheritance or child custody; and lack of legal protection leaves them exposed to domestic and sexual violence. Child marriages have also increased due to poverty and social insecurity as a result of the conflict this is often used as a coping mechanism by conflict affected families. In general, the north of Yemen is considered more conservative than the south in terms of gender and women's rights.³⁸
- 120. Gender-based violence can be in different forms: sexual harassment, forced marriage, early marriage, exchange marriage, female genital mutilation, denial of inheritance and restrictions to mobility. The government has made efforts to improve the rights of women in Yemen, through the formation of a Women's Development Strategy and a Women Health Development Strategy. However, enforcement of this legislation, in addition to traditional cultural and religious norms, is challenging and soared the gender inequalities in rights and opportunities between Yemeni women and men.³⁹
- 121. **COVID-19:** In Yemen, from 03 January 2020 to 12:47pm CEST, 15 July 2021, there have been 6 964 confirmed cases of COVID-19 with 1 366 related deaths according to the World Health Organization (WHO). ⁴⁰ 50 percent of Yemen's Governorates (11/22) have reportedly been affected⁴¹; however, it should be noted that reporting limitations due to conflict and reduced resources mean that the number of governorates (and individuals overall) affected are likely underreported. Yemen's healthcare system is in tatters after six years of war. Through the COVID-19 Vaccines Global Access program (COVAX Facility), Yemen should receive 14 million doses of COVID-19 vaccines, which could vaccinate 23 percent of the population across the

³⁶ https://reliefweb.int/sites/reliefweb.int/files/resources/rr-yemen-gender-conflict-analysis-201016-en_0.pdf
³⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/068-

Conflict%20and%20Gender%20dynamics%20in%20Yemen.pdf

³⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/068-

Conflict%20and%20Gender%20dynamics%20in%20Yemen.pdf

³⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/068-

Conflict%20and%20Gender%20dynamics%20in%20Yemen.pdf

⁴⁰ https://covid19.who.int/region/emro/country/ye

⁴¹https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covid 19_update_info_sharing-27_may_2021.pdf

country, according to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).⁴²

- 122. On 20 April 2021, Yemen launched the first round of its COVID-19 vaccination campaign in Aden and covered 13 Yemeni governorates. The campaign aims to reach 317 363 people in 133 districts across Yemen. Saudi Arabian authorities at the land border are requesting Yemen to provide a COVID-19 vaccination certificate to allow entry into the Kingdom of Saudi Arabia (KSA).⁴³ As of 12 July 2021, a total of 297 405 vaccine doses have been administered.⁴⁴ The WHO will start COVID-19 vaccinations in Northern Yemen, where the de facto authorities have not provided any COVID-19 infection or fatality figures since May 2020.⁴⁵
- 123. According to Human Rights Watch, Houthi authorities in Yemen have suppressed information about the dangers and impact of COVID-19 and undermined international efforts to provide vaccines in areas under their control.⁴⁶
- 124.
- 125. As for the 31 May 2021, no IDP households reported COVID-19 as the reason for displacement. So far, the total number of IDPs who have cited COVID-19 as the primary reason for displacement is 1 559 households.⁴⁷
- 126. **Food security and nutrition:** Prevalence of inadequate access to food was 42% during March 2021, after having slightly decreased to 39% and 40% during January and February 2021, respectively.⁴⁸ More than half of the governorates (13 governorates), had "very high" prevalence of inadequate food consumption during March 2021 (≥40%); the highest was recorded in Lahij (63%), Amran (59%), Shabwah and Al Dhale'e (57%), followed by Al Jawf and Raymah (56%).⁴⁹
- 127. Prevalence of poor access to food increased to around 20% or more in nine of the governorates. Prevalence was highest in Lahij (28%), Raymah (26%), Abyan (23%), Shabwah (22.5%), Al Jawf and Amran (21%).⁵⁰ Key factors limiting household ability to access food (as reported by households) included cumulative increase in food prices coupled with reduced incomes and unemployment which continued to depress the purchasing capacity of households further in 2021.⁵¹

⁴² https://www.hrw.org/news/2021/06/01/yemen-houthis-risk-civilians-health-covid-19

⁴³https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility% 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

⁴⁴ https://covid19.who.int/region/emro/country/ye

⁴⁵https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility% 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

⁴⁷https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility% 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

⁴⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

⁴⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

⁵⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

^{51 35} https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

- Nutrition education in Yemen spreading in schools in order to reach school 128. age children and their families. This has involved training schoolteachers about nutrition and having schoolteachers disseminate nutrition information to parents during parentteacher conferences.⁵² In Yemen, nutrition of children is increasingly threatened with consequences throughout the lifecycle and acute malnutrition is now at serious levels across the country. Only 15% of children are eating the minimum acceptable diet for survival, growth and development. Almost two million children under the age of five suffer from acute malnutrition, including 360,000 from severe acute malnutrition (SAM).⁵³
- 129. In Yemen, nutrition education is limited, with existing efforts spearheaded by international organizations and the government. The Republic of Yemen Multi-Sector Nutrition Plan aims to address child malnutrition, low birth weight, maternal malnutrition, micronutrients, child and maternal mortality.⁵⁴ The nutritional status of women of childbearing age is also a matter of significant concern in Yemen. Since 1997, there has been no improvement in the nutritional status of women and almost 1/4 of women are malnourished. Maternal malnutrition increases the risk of poor pregnancy outcomes - including obstructed labour, premature or low-birth-weight babies and postpartum hemorrhage.⁵⁵ In 2019, over one million pregnant and lactating women were educated on Infant and Young Child Feeding (IYCF), to improve survival, growth, and development of children. A total of 1.7 million pregnant and lactating women received IYCF counselling in 2018.⁵⁶ Through the Nutrition Cluster Bulletin, nutrition education on improving exclusive breast feeding in the first 6 months and IYCF counselling for children under two years was provided to 3,195,059 pregnant and lactating women and care givers.⁵⁷
- 130. The government's National Fisheries Strategy also addresses nutrition and food security by boosting the livelihood opportunities of fishing families and communities. The National Fisheries Strategy (2012–2025) has an overall goal of enhancing the sector's contribution to economic growth, improving community livelihoods, empowering women and youth and strengthening food security. The strategy sets forth plans for the sector for the following: (i) efficient use of fishery and aquaculture resources; (ii) economically and environmentally viable solutions; (iii) good governance and management; (iv) close collaboration with related sectors and strong public-private partnerships as committed principles; (v) improvement in stock management; (vi) value chain developments and additions; and (vii) domestic marketing

⁵² National Nutrition Strategy for Yemen

⁵³ https://www.unicef.org/yemen/nutrition

⁵⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/National-Strategy-for-SBC-for-Nutrition_Yemen%28English-version%29.pdf

⁵⁵ https://www.unicef.org/yemen/nutrition

⁵⁶ Ibid.

⁵⁷https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/2020 _nc_bulletin_issue_10_jan-dec_2020_with_im_revision_002_0.pdf

and promotion of alternative livelihood systems, with a particular focus on strengthening food security.⁵⁸

- 131. International organizations also contribute to food security and nutrition education in Yemen. In particular, the Global Nutrition Cluster is active in Yemen. However, at the moment the majority of international aid is directed toward emergency food provisions and measures as opposed to nutrition education.⁵⁹ Food security is addressed through a multi-pronged approach targeting household income, agricultural production and productivity, farmers' access to markets, nutrition enhancing practices, and food security management.⁶⁰
- 132. Actions to address child labour: More than 1.3 million children are involved in child labour in Yemen, including 469 000 between the ages of 5 and 11 – most of them unpaid. In 2019, the Republic of Yemen Government passed the Action Plan to End and Prevent the Recruitment of Children by the Yemeni Armed Forces, which involved creating 90 Child Protection Focal Points in the armed forces and training 40 of them to identify child soldiers.⁶¹ Yemen has also ratified the International Labour Organization (ILO) Convention No. 138 on Minimum Age and Convention No. 182 on the Worst Forms of Child Labour, accepting that children under the age of 14 cannot be employed and that children under the age of 18 cannot be employed in hazardous labour.⁶² However, 2004 Ministerial Decree No. 56 sets the minimum working age at 15, but section 133 of the 2002 Child Rights Laws states that the working age is 14. Therefore, the actual minimum age for employment is uncertain.⁶³ Yemen's Labor Code prohibits hazardous work for children under the age of 15 – unless they are working in agriculture, domestic service or working with their families, in which case working conditions must be "suitable" (this term is not defined in the Labor Code). However, Decree No. 56 prohibits hazardous work for anyone under the age of 18 with no exception.⁶⁴ The Child Rights Laws protect children under age 18 from economic exploitation and the Child Rights Act prohibits child prostitution.⁶⁵ Decree No. 56 states that the worst forms of child labour must be eliminated – including prostitution, pornography, child soldiers, forced labour, trafficking and illicit activities - and stipulates prison sentences for selling children, forcing children into prostitution and/or inciting children into drug trafficking.⁶⁶
- 133. **Social Protection measures at the government level:** Social protection in Yemen at the government level consist of numerous programmes and initiatives. The Social Safety Net Programme includes the Social Welfare Fund, Social Fund for Development, Agricultural and Fishery Promotion Fund, Public Work Programme, Family

⁵⁸ https://mqsunplus.path.org/wp-content/uploads/2020/08/Yemen-MSNAP-FINAL_29April2020.pdf

⁵⁹https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/2020 _nc_bulletin_issue_10_jan-dec_2020_with_im_revision_002_0.pdf

 ⁶⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/mena-yemen-overview-april21-eng.pdf
 ⁶¹ https://www.dol.gov/agencies/ilab/resources/reports/child-labor/yemen

⁶² https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_201431/lang--en/index.htm

⁶³ https://www.refworld.org/pdfid/4d4a68190.pdf

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

Productive Programme and the Small and Medium Enterprises Fund. These programmes and funds provide cash assistance for poor households, implement projects that create job opportunities and lead to ownership of assets, provide basic services, provide social protection for military and non-military employees during old age and illness and support productive activities in agriculture and fisheries. The government has also started recognizing the importance of social protection institutions – such as cooperatives, trade unions and professional associations.⁶⁷

134. Yemen's Strategic Vision 2025 aims to expand the social safety net and targeting mechanisms, empower the poor economically through funding for small business and delivering capacity building though training programmes, expand social insurance and pension coverage to include all employees in all units of the government as well as public and private institutions, increase labour-intensive investments in all economic sectors – but particularly in agriculture in rural areas, implement national strategies for social protection and food security and increase the availability of loans for the poor in rural areas – especially for women.⁶⁸ Specific laws include the Insurance and Pension Law No. 25 of 1991 and the Social Welfare Law No. 31 of 1996.⁶⁹

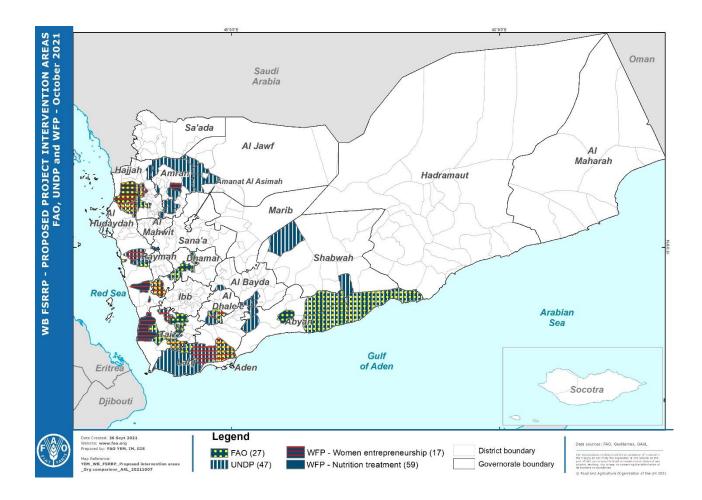
4.2 Environmental and Social Baseline for Project Areas

135. An overview of the environmental and social baseline for each project area is provided in this section. Only safeguard-relevant information is discussed at length and, whenever deemed necessary, additional information on other environmental and social development-related information has been provided. Project areas are covered in alphabetical order for ease of reference.

Figure 2: Project areas map for activities implemented by FAO, UNDP and WFP

⁶⁷ https://www.ids.ac.uk/download.php?file=files/dmfile/SocialprotectionandsafetynetsinYemen.pdf

⁶⁸ https://www.ids.ac.uk/download.php?file=files/dmfile/SocialprotectionandsafetynetsinYemen.pdf



ABYAN:

- 136. **Topography & Geology:** The Governorate of Abyan is located in the southern part of the Republic of Yemen, with an area of 16,442 square kilometers. It is about 427 km to the southeast of the Capital Sana'a and surrounded by Shabwah and Albyda Governorates on the North, the Arabian Sea on the south, Shabwah governorate to the East, and Aden and Lahij governorates on the west. Abyan governorate consists of 11 districts which are divided into coastal districts (Khanfir , Zingibar and Ahwar) and mountainous districts (Sara, Rasad, Sibah , Lawdar, Mudiyah , Al Wadea, Jayshan and Al Mahfad). Zingibar is the administration center – the capital – for Abyan governorate.^{70,71}
- 137. The topography of Abyan varies from high mountains reaching 2 350 m above sea level in Rasad and Sibah districts to escarpments along the coast, running from west to east the length of the governorate.⁷² Abyan delta is a prominent feature of Abyan governorate and one of the largest irrigated areas in Yemen with 40 thousand hectares of irrigable land.⁷³ The basement rocks of Abyan's mountainous areas consist of

⁷⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf

⁷¹ https://yemenlg.org/governorates/abyan/

⁷² https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf

⁷³ water-10-00121-v2.pdf

Precambrian pink to gray granitic gneiss, migmatites, amphibolite, marble and metavolcanic rock and form part of the Al-Mahfid gneiss terrane and the Precambrian Shield. Marble is present as tectonic layers within the gneiss terrane.⁷⁴ The Precambrian Shield forms the basement of the Arabian Peninsula and is comprised of igneous rocks such as pink orthoclase granites, diorite, gabbro and mafic volcanic rocks. The Arabian shield also consists of metamorphic rocks such as mica, chlorite and garnet schists, gneiss, quartzite, marble and slate. These rocks have experienced intense folding and faulting over time and so the structure of the shield is considered complex.⁷⁵

- 138. **Climate & Meteorology:** Abyan's climate varies according to the topography of the terrain. In the coastal plains the climate is hot during all seasons and temperature can rise in the summer to 40°C. In the winter months, the mean temperature decreases to 20°C. The coastal plains also witness low frequencies of rainfall in the winter and autumn months. However, in the mountainous highlands the weather is warm with moderate degrees in summer and winter along with occasional rainfall witnessed in the spring and summer seasons.⁷⁶
- 139. **Soil Quality:** Abyan's soils are isohyperthermic and aridic.⁷⁷ Isohyperthermic soils are the hottest soils on Earth and measure above 22° C.⁷⁸ Aridic soils are hot and dry and occur in aridic climates. Irrigation is required in aridic soils in order to produce crops.^{79,80}
- 140. **Land Use:** Fishing and agriculture are considered the main activities for local people in Abyan and contribute 4.72 percent of Yemen's agricultural products.⁸¹ The most important crops produced in the governorate are cotton, vegetables, and fruits.⁸² Date palms and livestock rearing also serve as a source of livelihoods. The most popular wadis are Wadi Bana, Wadi Hassan, Wadi Wadi Alsaila Albaidaa, Wadi Lema and Wadi Ahwar. Fishing is a common livelihood along the coast.⁸³ In the Abyan Delta, cash crops such as cotton and sesame are grown along with staple and other crops such as mango, watermelon, banana, papaya, lemon, groundnut, tomato, sorghum, millet, wheat and maize. Due to water shortages within the Delta region, crops are commonly irrigated at only 80 percent or lower of their water requirements.⁸⁴

https://yemenlg.org/governorates/abyan/

⁷⁴ LeBasetal2004MinandPetrologyThecarbonatite-mantledykesofAbyanProvinceYemenRepublicthemixingofmantleandcrustalcarbonatematerialsrevealedbyisotopeandtraceelementanalysis.pdf

⁷⁵ https://edepot.wur.nl/493427

⁷⁶ https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf

⁷⁷ https://edepot.wur.nl/493427

⁷⁸ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

⁷⁹ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

⁸⁰http://www.soilinfo.psu.edu/index.cgi?soil_clim&information&general&taxonomy_defs&soil_moist_regime s&classes&aridic

⁸¹ https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf
⁸² <u>https://www.yemenna.com/index.php?go=guide&op=show&link=abin</u>cited in

 ⁸³ https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf
 ⁸⁴ water-10-00121-v2.pdf

- 141. Water Resources: Almost half (48 percent) of households in Abyan do not have access to potable water (OCHA: An overview of the humanitarian needs in Yemen 2018). Water services and sanitation are available in some districts, but not all. Local water services operate with support from international organizations.⁸⁵ Disputes over water for crops in the Abyan Delta have led to over 100 deaths in the past decade due to the absence of clear water rights and inequalities in the use of local resources. This has led to unbalanced water allocation and contention between the more affluent Yafa'e tribe upstream and less privileged Fadhli tribe downstream. Water is traditionally allocated first to upstream fields with the constraint that only one saturation per irrigation season is achieved. After the demand of the upstream Yafa'e tribe is fulfilled, the water is passed downstream to the Fadhli. Consequently, Fadhli farmers downstream have resorted to groundwater extraction to irrigate their fields, yet are still facing water shortages due to decreasing volume of groundwater reserves and aquifers. The Yafa'e relies on spate irrigation from Wadi Bana.⁸⁶
- 142. Irrigation System: freshwater Spate irrigation, or the use of seasonal floods, is the most common source of irrigation in Abyan governorate with groundwater extraction the second most common source. However, these two sources are not enough to meet the needs of the Abyan population, even in the Abyan Delta one of the largest irrigation systems in Yemen. Rules regulating spate irrigation in Abyan follow allocation of water to upstream and then downstream users and/or year of establishment, meaning that water users established on land first can access water first.⁸⁷
- 143. Agroecological Zones & Eco-Regions: Abyan is located in the Afrotropical realm and the deserts and xeric shrublands biome eco-region. This eco-region is located along the southern coast of the Arabian Peninsula and is characterized by low rainfall and dense fogs from the southwest monsoons, which serve to provide moisture in the dry environment.⁸⁸ Abyan falls under four livelihood zones, the Greater Yemen Coastal and Island Fishing Zone, the Western Coastal Plain Sorghum Millet and Livestock Zone, the Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone and the Central and Eastern Plateau Agro-pastoral Zone. The Greater Yemen Coastal and Island Fishing Zone spans the coast of Yemen and its islands and is characterized by fishing-based livelihoods. In this zone, crop production is less common but rearing and selling of goats, sheep and cattle is common in addition to ocean-based livelihood activities. The Central and Eastern Plateau Agro-pastoral Zone is characterized by low rainfall making the production of crops risky. People in this zone rely on sorghum and wheat as food and cash crops and rear cattle sheep and goats. In the Western Coastal Plain Sorghum Millet and Livestock Zone, sorghum and millet are grown as food and cash crops while cotton is also produced as a cash crop. In the Western and Central Wadi

⁸⁵ Interview with Local Council Member, Abyan. March 2019 cited in https://yemenlg.org/governorates/abyan/

⁸⁶ water-10-00121-v2.pdf

⁸⁷ water-10-00121-v2.pdf

⁸⁸ https://www.worldwildlife.org/ecoregions/at1302

Sorghum, Millet, Vegetable, Fruit and Livestock Zone sorghum, millet, maize and vegetables are grown as food and cash crops.⁸⁹

Zone 7: Greater Yemen Coastal and Island Fishing

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	1		Weedin	g		Harvest	ing
Crops												
Fruits (banana and papaya)												
Livestock												
Livestock sales							1					
Other												
Fishing			1					PEAK S	EASON			
Lobster			1									
Salt mining								-				
Food purchases			1				1	INCREA	SED PRIC	ES		
Time of food shortages												
Rainy Seasons												

Zone 14: Western Coastal Plain Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	•		Weedin	g		Harvest	ing
Crops												
Sorghum								i i				
Millet								r i				
Cotton (some areas)												
Livestock												
Milk production								1				
Livestock sales		1						1		-	1	1
Other												
Local labor		1	-	1			-	ľ			1	
Food purchases								i –				
Time of food shortages												
Rainy Seasons												

Zone 11: Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Sorghum								1				
Millet								1				
Vegetables				1								
Fruit												
Livestock												
Milk production												
Livestock sales							1					
Other												
Local labor				·								
Food purchases												
Firew ood collection and sales									1	1		
Time of food shortages												
Rainy Seasons								1				

⁸⁹ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	I		Weedin	g		Harvest	ing
Crops												
Wheat				1								
Sorghum - season 1		î			i T			í				
Sorghum - season 2										1		
Sesame												
Livestock												
Milk production							1					
Livestock sales												
Livestock migration							1					
Livestock mating					1					ľ		
Other												
Local labor					·					1		
Labor migration									4			
Honey sales			í					1				
Food purchases			·				1					
Time of food shortages										í I		
Rainy Seasons							_					

Zone 3: Central and Eastern Plateau Agro-Pastoral Zone

144. **Biodiversity & Forests:** Abyan's forests are comprised of deciduous woodland, semi-deciduous thicket and grassland. As fog decreases toward the north, grasslands are replaced by succulent shrubland which eventually leads to sparse vegetation and then open desert. Over 900 vascular plants are known to grow in the foggy areas of the coast, including at least 60 endemic species and two endemic genera, many of which have medicinal or economic value such as frankincense. Abyan's fauna include Arabian oryx, Arabian wolf, Arabian gazelle, honey badger, Ruppell's sand fox and red fox. The main threats to Abyan's biodiversity include over-grazing by camel, goats and cattle owned by pastoralists as well as cutting wood for timber and off-road driving.⁹⁰

145. **Protected Areas:** There are no protected areas in the Abyan governorate.

146. **Demographics:** The governorate of Abyan is 16 943 km². Total population is 615 154 people as of 2019⁹¹ (568 000 people as of 2017 with 279 000 female and 289,000 male residents.⁹²) Average family size is 6 individuals.⁹³ As of 2019, there were 29.124 individual IDPs and 4.854 IDP households in Abyan. 100% of displacement within

⁹⁰ https://www.worldwildlife.org/ecoregions/at1302

⁹¹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Final[3].pdf

⁹² 2017 Yemen Central Statistical Organization projections based on the 2004 census, cited in https://yemenlg.org/governorates/abyan/

⁹³https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_-_apr_2016.pdf

the Abyan governorate has occurred due to conflict, as opposed to natural disaster.⁹⁴ As of 2019, there were 11 496 individual returnees and 1 916 returnee households.⁹⁵

- 147. **Education:** In Yemen, the literacy rate among the population aged 15 years and older is 54.1 percent (73.2 percent among males and 35 percent among females). Between 15 and 24 years old the literacy rate is 77 percent (92.8 percent among males and 60.6 percent among females). Among people 65 years and older the literacy rate is 13.7 percent (25.7 males and 1.5 percent among females). 4 781 367 people (1 395 248 men and 3 386 119 women) aged 15 years and older and 958 315 people between 15 and 24 years old (150 671 male and 807 644 female residents) are illiterate.⁹⁶
- 148. The education system has suffered significant damage due to conflict: 69 schools have been damaged in the war in Abyan, according to OCHA.⁹⁷ A UNICEF study states that in 2011 and 2012, the revolution and subsequent uprisings alone prevented 1.2 million children in Yemen from regularly accessing education, particularly in Abyan (and Lahij).⁹⁸According to the Abyan Education Office, 4 371 IDP children are estimated to have remained in Abyan governorate. At the start of the academic year 2011-2012, more than 43 schools were occupied by IDPs in Abyan.⁹⁹
- 149. In terms of learning environment, there is a lack of assistance provided to vulnerable children. Over 90 percent of schools do not provide protection monitoring, school meals, hygiene and dignity kits to female students. 98 percent of respondents mentioned that no school uniforms are provided to vulnerable children attending schools. 60 percent monitored school attendance/dropout rate while only 50 percent provided remedial and support classes. Many families mentioned that they could not afford the school uniforms to send their children to school.¹⁰⁰
- 150. A 2019 Study carried out in Abyan (and Zinjibar) found that 33 percent of IDP children have a mental or physical disability.¹⁰¹ Rates of child disability (as high as 10

⁹⁴https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0. pdf

⁹⁵https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0. pdf

⁹⁶ http://uis.unesco.org/en/country/ye?theme=education-and-literacy

⁹⁷ An Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/abyan/ ⁹⁸ Education-Focused Conflict Analysis of the Republic of Yemen. <u>Draft Final report</u> (Sana'a, Yemen: UNICEF Yemen Country Office, 2013), p. 22

⁹⁹https://www.unicef.org/mena/media/6691/file/Yemen%20Country%20Report%20on%20OOSC_EN.pdf%20. pdf

¹⁰⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

¹⁰¹ Youth Foundation of Abyan. Education Needs Assessment Abyan Governorate Khanfar and Zinjibar Districts. Feb 2019, cited in https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster___sdr_report_yemen_2020-08-17-.pdf

percent)¹⁰² has meant children are not sufficiently included in educational interventions across the country.

- 151. Teachers are paid regularly and, overall, despite challenges, education in Abyan appears to be stable and continues to function with funding from local authorities and several donors.¹⁰³
- 152. **Health:** Health services in the governorate are available through hospitals and healthcare facilities that rely mainly on support from international organizations. The services provided are limited and insufficient to meet the needs of the population.¹⁰⁴ 29 978 cases of Cholera and 57 related deaths (CFR 0.19 percent) were reported in Abyan from the 27 April 2017 to 31 August 2019.¹⁰⁵ From 01 January to 25 May 2019, there were a total of 10 240 suspected cases of dengue fever along with 36 associated deaths (CFR 0.4 percent). The highest proportion of cases are from districts where access is a challenge due to the security situation.¹⁰⁶ As of 31 May 2021, 42 total COVID-19 cases were reported, with 10 deaths and 25 recoveries.¹⁰⁷
- 153. **Poverty Profile:** According to the 2014 Households Budget Survey, the poverty rate in Abyan was 48.6 percent. With the economic downturn the governorate has faced due to the war, this rate is likely to have increased tremendously over the past few years.¹⁰⁸ According to OCHA (Humanitarian Response Plan for Yemen 2018), there are nearly 500 000 people (88 percent of the population) in need of assistance in Abyan. 58 percent of them are in dire need.¹⁰⁹ People in need (PiN) in Abyan include 5 697 IDPs in catastrophic need, 7 569 in extreme need, 10 353 in severe need, 8 349 stressed and 4 067 in minimal need. Regarding non-IDPs in Abyan 122 872 are in catastrophic need, 125 638 are in extreme need, 146 415 are in severe need, 122 408 are stressed and 65 524 are in minimal need.¹¹⁰
- 154. **Food Security:** Emergency Food Security and Nutrition Assessment (EFSNA) conducted in 2016 shows that the nutrition condition in Abyan exceeding the WHO's "emergency" threshold, with a Global Acute Malnutrition (GAM) prevalence of 16 percent. The Community-Based Management of Acute Malnutrition (CMAM)

¹⁰² UNSDG. Policy Brief: A Disability-Inclusive Response to COVID-19. May 2020, cited in https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-

[.]pdf

¹⁰³ https://yemenlg.org/governorates/abyan/

¹⁰⁴ Interview with Local Council Member, Abyan. March 2019 cited in

https://yemenlg.org/governorates/abyan/

¹⁰⁵Interview with Local Council Member, Abyan. March 2019 cited in

https://yemenlg.org/governorates/abyan/

 ¹⁰⁶https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1
 ¹⁰⁷https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility%
 20Restrictions%20Dashboard%20DRAFT %2325 V2.pdf

¹⁰⁸ https://yemenlg.org/governorates/abyan/

¹⁰⁹ https://yemenIg.org/governorates/abyan/

¹¹⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

programme is run by the GHO and some NGOs in 90 out of 140 health facilities with a coverage percentage of 64 percent.¹¹¹ However, response does not match the governorate needs due to unavailable proper health service and lack of drugs in the functional health facilities.¹¹² Food is the main need for the majority of households in Abyan, as opposed to shelter/housing and financial services.¹¹³ Six governorates in Yemen have acute malnutrition rates that exceed the 15 percent WHO emergency threshold, including Abyan.¹¹⁴ According to the IPC Acute Food Insecurity Analysis October 2020 – June 2021, in a population of 615 154 people, 123 500 are in IPC Phase 1 (Minimal), 185 500 in IPC Phase 2 (Stressed), 206 500 in IPC Phase 3 (Crisis), 98 000 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 49 percent of the population (304 500 people) is in IPC Phase 3 or higher.¹¹⁵

- 155. **Instances of Child and Youth Labour:** Exploitation of children in slavery-like situations in coastal areas for labour related to fishing does occur, particularly along the Gulf of Aden coast. Children are forced to work on fishing vessels in harsh and unsafe conditions.^{116,117}
- Social Protection: Abyan's executive offices functioning normally provide services to the people at the minimum level with support mainly from international donor organizations in areas such as education, healthcare and humanitarian relief.¹¹⁸ Through the Protection for Community Resilience Project (SPCRP), as of June 2019 the United Nations Development Programme's (UNDP) Social Protection for Community Resilience Project (SPCRP) was implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen community resilience in 13 of Yemen's most vulnerable governorates, including Abyan.¹¹⁹ Another critical social protection/cash assistance intervention was the Rapid Response Mechanism (RRM) project implemented in partnership with Field Operation and Emergency sections (the project coordinator) and Action Contre la Faim (ACF the project implementer). The RRM mechanism integrated a few critical first-response activities, including the unconditional cash disbursed among IDPs in Abyan (as well as Lahij and Aden governorates). In total, 1 196 IDP households (6 789 individuals),

¹¹¹ Task Force on Population Movement 16th report, October 2017, cited on

https://reliefweb.int/sites/reliefweb.int/files/resources/smart_survey_abyan_jan_2018.pdf ¹¹² Task Force on Population Movement 16th report, October 2017, cited on

https://reliefweb.int/sites/reliefweb.int/files/resources/smart survey abyan jan 2018.pdf

¹¹³https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

¹¹⁴https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/yem en_hno_2021_final_version_1.pdf

¹¹⁵http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

¹¹⁶ https://www.dol.gov/sites/dolgov/files/ILAB/pdf_override/Yemen_ACCESSPLUS_CLOSED_0.pdf

 $^{^{117}\,}https://relief web.int/report/yemen/yemen-what-do-about-child-labour$

¹¹⁸ Interview with Local Council Member, Abyan. March 2019 cited in

https://yemenlg.org/governorates/abyan/

¹¹⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

including 3 131 children under five (1 531 girls and 1 600 boys) were reached with threemonth unconditional cash assistance (USD 96 – the amount equal to the value of a food basket) to address the displaced population's food and other basic needs and facilitate their access to social services.¹²⁰ WB/UNICEF ECT program for SWF beneficiary households and WFP in-kind assistance program have the highest number of recipients in Abyan's governorates (50.000 and 50.000 respectively)¹²¹

AL BAYDA:

- 157. **Topography & Geology:** The Governorate of Al-Baydha is located in central Yemen and is 267 kilometers south of Sana'a. The governorate has 20 districts. The city of Al-Baydha is the governorate capital. The governorate has special significance for its location in the center of Yemen. It has shared borders with eight other Yemeni governorates: Marib, Shabwah, Lahij, Al-Dhalea, Ibb, Dhamar, and Sana'a.¹²²
- 158. The topography of Al Bayda is mainly a mountain plateau of the Sarawat Mountain Range and contains some plains and desert regions. Maximum elevation is 10 414 feet and minimal elevation is 2 250 feet while average elevation is 5 623 feet.¹²³ The geology of Al Bayda follows that of other Sarawat mountainous areas. Basement rock is the Precambrian shield with the Yemen Volcanics formation occurring extensively throughout the governorate and other parts of southwest Yemen. The Yemen Volcanics are comprised of igneous volcanic rock and are characterized by rocky mountainsides and soil formation in areas protected from weathering and erosion.¹²⁴ Much of Al Bayda consists of exposed Precambrian basement rock due to weathering and eroded mountain tops.¹²⁵
- 159. **Climate & Meteorology:** Al Bayda experiences moderate temperatures in summer months and cold temperatures during the winter in the mountainous highlands and hot summers and moderate winters in the desert lowlands. Al Bayda has 4 major climatic zones including cold desert climate, cold semi-arid climate, hot desert climate and hot arid climate. December is the coldest month with average temperatures of 15.2° C while June is the hottest month with average temperatures of 23.8° C. Average annual rainfall is 179 mm with the lowest rate of rain occurring in November and December with 1 mm each and the highest amount of rainfall occurring in August with 58 mm. Rain falls over an average of 28 days with 0 days in November and December and 10 days in August. Humidity ranges from 27 percent in June to 52 percent in August.¹²⁶

¹²⁰ https://socialprotection.org/connect/communities/social-protection-crisis-contexts/documents/european-commission-span-2019-case-1

¹²¹ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

¹²² https://yemenlg.org/governorates/al-baydha/

¹²³ https://en-ie.topographic-map.com/maps/kl9y/Al-Bayda-Governorate/

¹²⁴ https://edepot.wur.nl/493427

¹²⁵ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

¹²⁶ https://en.climate-data.org/asia/yemen/al-bayda-governorate-2049/r/july-7/

- 160. **Soil Quality:** Al Bayda's soils are commonly shallow with the deepest soils found on terraced slopes, valleys and wadis. Soils are predominantly alkaline, calcareous and saline. Soils are rich in minerals, yet these minerals are not of much value to plants so overall soil micronutrients are poor for plant growth.¹²⁷
- 161. Land Use: Agriculture is the main economic activity in the governorate. Al-Baydha produces about 2.6% of the total agricultural output of Yemen. The most important products are vegetables and cash crops.¹²⁸ Qat is one of the most important cash crops in Yemen and is cultivated throughout the governorate. The area around Rada' produces an endemic type of qat know as rada'i. Al Bayda produces 13 percent of Yemen's qat and has the 3rd highest qat production in the country. In mountainous regions, crops are grown on terraces and livestock is reared. In the plains, plateaus and valleys crops are produced in fields. Pastoralism is common in Al Bayda, particularly in desert regions of the governorate. In mountainous regions, production of sorghum, millet, maize and qat is common with qat being the main economic driver of the region and providing a reliable source of income throughout the year.¹²⁹
- 162. **Water Resources:** Wadis, or mostly drive riverbeds through which floods are drained, are common in Al Bayda and provide an important source of water. Large, eastward flowing, wadis are drained through Al Bayda's plains around Rada' to the Eastern Sand Desert and Empty Quarter. The drainage of these wadis creates fertile areas in the plains and provides water for irrigation. Even though rainfall is infrequent, the governorate's shallow soils often cannot absorb all rainfall and runoff is collected in common drainage basins which send water toward the Arabian Sea, Gulf of Aden and Empty Quarter.¹³⁰ As for drinking water, in 2016/17, the majority (59%) of households in Al-Baydha did not have ready access to potable water. Regarding sanitation, a sewage system exists only for some neighborhoods of Al-Baydha City and in Rada'a. Moreover, the system is subject to breakdown and local authorities must carry out the repairs with limited resources.¹³¹
- 163. **Irrigation System:** Rainfed, runoff and groundwater extraction are the forms of irrigation utilized in Al Bayda. Rainfed irrigation requires no human intervention and is when water is supplied from natural rainfall. Runoff irrigation takes place when runoff and drainage systems, such as wadis, are directed to agricultural fields. This system also relies on the natural occurrence of rainfall yet manipulates the flow to irrigate crops. Groundwater extraction is water extracted from groundwater reservoirs and aquifers.¹³²

¹²⁷ https://www.ircwash.org/sites/default/files/823-YEAL90-7941.pdf

¹²⁸ https://yemenlg.org/governorates/al-baydha/

¹²⁹ https://publications.iom.int/system/files/pdf/qat_yemen.pdf

¹³⁰ https://www.ircwash.org/sites/default/files/823-YEAL90-7941.pdf

¹³¹ Interview with one of the leaders of the local council, Sana'a capital city. March 2019, cited in https://yemenlg.org/governorates/al-baydha/

¹³² https://www.ircwash.org/sites/default/files/823-YEAL90-7941.pdf

164. **Agroecological Zones & Eco-Regions:** Al Bayda is in the Afrotropical realm and the Southwestern Arabian foothills savanna biome eco-region. This eco-region covers the Sarawat mountains and is characterized by subtropical and arid climates. Al Bayda falls under two livelihood zones, Western and Central Highland Qat, Grain, Fodder, Livestock Zone and Central and the Eastern Plateau Agro-pastoral Zone. The Western and Central Highland Qat, Grain, Fodder, Livestock Zone is characterized by cultivation of sorghum, millet, maize and qat as well as livestock rearing in highlands regions. The Central and Eastern Plateau Agro-pastoral Zone is characterized by low rainfall making the production of crops risky. People in this zone rely on sorghum and wheat as food and cash crops and rear cattle sheep and goats.¹³³

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Sorghum and millet							1					
Maize		1								ĺ –	ĺ	í
Qat												
Milk production							1					í
Livestock sales		1		1						1		
Other												
Local agricultural labor										Í		
Labor Migration												
Food purchases												
Rainy Seasons							1					

Zone 10: We	estern and Central Highlan	d Qat, Grain	, Fodder, Livestock
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7	6		-	DI		-
Zone 3:	Central	and	Eastern	Plateau	Agro-Pastoral	zone

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Wheat				i								
Sorghum - season 1		i			i –			1				
Sorghum - season 2										1		
Sesame							i					
Livestock												
Milk production										1	-	
Livestock sales			-	-								
Livestock migration							1			1		
Livestock mating					1					Î 👘		
Other												
Local labor					·							
Labor migration		1	1	1	1		1	4	1	1	-	
Honey sales			í					1				
Food purchases			· · · · ·				1					
Time of food shortages										í i		
Rainy Seasons												

165. **Biodiversity & Forests:** The forests of the Southwestern Arabian foothills savanna biome eco-region include drought-resistant deciduous woodlands, evergreen woodlands, dry grasslands and shrublands. Acacia woodlands are also common in lower

¹³³ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

elevations. Al Bayda's fauna includes panthers, caracal, baboons, rock hyrax and hyenas. $^{\rm 134}$

- 166. **Protected Areas:** Protected areas are not located in this governorate.
- 167. Demographics: The governorate of Al-Bayda is 9 279 km². Total population is 775 404 as of 2019¹³⁵ (760 000 people as of 2017 with 380 000 female and 380 001 male residents).¹³⁶ Average family size is 6 individuals.¹³⁷ As of 2019, 59 022 individual IDPs and 9 837 IDP households were in Al-Bayda. 100 percent of displacement in Al-Bayda governorate occurred due to conflict, as opposed to natural disaster.¹³⁸ A decrease in the number of IDPs within the governorate was reported in Al Bayda.¹³⁹ As of 2019, there were 13 008 individual returnees and 2 168 returnee households in Al-Bayda.¹⁴⁰
- 168. **Education:** In Yemen, the literacy rate among the population aged 15 years and older is 54.1 percent (73.2 percent among males and 35 percent among females). Between 15 and 24 years old the literacy rate is 77 percent (92.8 percent among males and 60.6 percent among females). Among people 65 years and older the literacy rate is 13.7 percent (25.7 males and 1.5 percent among females). 4 781 367 people (1 395 248 men and 3 386 119 women) aged 15 years and older and 958 315 people between 15 and 24 years old (150 671 male and 807 644 female residents) are illiterate.¹⁴¹ Attacks on Education in Yemen have been extensive and include attacks on schools, students and teachers, and military use of schools for occupation and child recruitment.¹⁴² For example, the UN verified that on 16 December 2014, a suicide bomber detonated a car bomb near a primary school bus close to a Houthi checkpoint in Radaa city, Al Bayda governorate, killing at least 9 children and injuring 24.¹⁴³ The consequence of such attacks reduced functionality of the education system and reluctance of parents to send

¹³⁴https://www.worldwildlife.org/ecoregions/at1321

¹³⁵http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

¹³⁶ 2017 Yemen Central Statistical Organization projections based on the 2004 census, cited in https://yemenlg.org/governorates/al-baydha/

¹³⁷https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

¹³⁸https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

¹³⁹https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-apr_2016.pdf

¹⁴⁰https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

¹⁴¹ http://uis.unesco.org/en/country/ye?theme=education-and-literacy

¹⁴² https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

¹⁴³ Information provided by a UN respondent, September 17, 2017. Ahmed Al-Haj, AP, "2 bombers kill 26 including 16 students in Yemen," San Diego Union-Tribune, December 16, 2014. AFP, "Yemen car bomb attack kills 25, including 15 children," Ma'an News Agency, December 16, 2014. Kareem Fahim, "Car Bombs in Yemen Kill Dozens, Including Schoolchildren," New York Times, December 16, 2014, cited in https://www.refworld.org/docid/5be942f926.html#_ftnref2562

their children to school, or children to attend out of fear of attack.¹⁴⁴ According to OCHA, fighting in Al-Baydha damaged 64 schools.¹⁴⁵ As it falls under control of Ansar Allah, Al Baydha is one of the governorates where teachers have not been paid their monthly salaries.¹⁴⁶ This has disrupted education. There have been attempts to revive some schools in the governorate through fees, whereby each student would make a small monthly payment for the provision of educational services, but this has not produced tangible results.¹⁴⁷ According to UNICEF, due to access restrictions, psychosocial support and mine risk education activities were not fully implemented in Al Bayda.¹⁴⁸ The district that presented the lowest school attendance rate was Maswarah in Al Bayda (0 percent, together with Ad Durayhimi in al Hudaydah).¹⁴⁹ As for the learning environment, schools lack textbooks In Al Bayda.¹⁵⁰ According to the Yemen Education Cluster there is no International Organizations presence in the affected areas, only a few local organizations intervened.¹⁵¹

169. Health: Health services in hospitals and public health facilities are available at minimum capacity and are mainly supported by international organizations. However, such services are insufficient to meet the needs of the local population. Many, especially those with financial means, resort to private hospitals and health centers to access healthcare services.¹⁵² According to UNICEF, 43 831 suspected Acute Watery Diarrhea 'AWD'/cholera cases with 12 associated deaths¹⁵³ were recorded (case fatality rate [CFR] 0.03 percent) during the reporting period in 2019. Al Bayda (with Lahij, and Sa'ada) is one of the most cholera affected governates.¹⁵⁴ 78 613 cases of Cholera and 94 deaths (CFR 0.12 percent) were also reported in Al Bayda from 27 April 2017 to the 31 August 2019.¹⁵⁵ From 28 December 2020 to 28 March 2021, a total of 14 246 suspected cases of AWD/Cholera were reported from northern governorates along with 2 associated deaths in Yemen. Within the last 3 epidemiological weeks, suspected cases were reported, nationally with 9 percent of these being reported from Al Bayda governorate. From 28 December 2020 to 28 March 2021, a total of 1 396 suspected cases of dengue fever were reported from northern governorates along with one associated death in Yemen. Within the last 4 epidemiological weeks, suspected cases were reported, nationally with 4

¹⁵¹ Ibid.

¹⁴⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

¹⁴⁵ OCHA, Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/albaydha/

¹⁴⁶ Economic and Social Developments Newsletter, Issue No.30, December 2017 published by the Studies and Economic Forecast Sector of the Ministry of Planning, cited in https://yemenlg.org/governorates/al-baydha/ ¹⁴⁷ https://yemenlg.org/governorates/al-baydha/

¹⁴⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

¹⁵² Yemen Cholera Outbreak – Interactive Dashboard(http://yemeneoc.org/bi/), data as at 30 November 2019 in https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

¹⁵³ Yemen Cholera Outbreak – Interactive Dashboard(http://yemeneoc.org/bi/), data as at 30 November 2019 in https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

¹⁵⁴ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

¹⁵⁵ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf

percent from Al Bayda governorate.¹⁵⁶ As of 31 May 2021, in Al Baydha, 142 total cases were reported, 69 deaths and 75 recovered.¹⁵⁷ The Yemeni authorities have put additional preventive measures and health screenings for people passing through ten transit points used for public movement between southern and northern governorates, specifically at points located in Al-Bayda (and Taiz). As of 31 May 2021, these restrictions have been loosened and the health screenings have been removed.¹⁵⁸

- Poverty Profile: Financial services were the main need for most households 170. in Al Baydha, as opposed to shelter/housing and food.¹⁵⁹ Regarding the humanitarian situation, there are nearly 500 000 people, or approximately 65 percent of the population, in need of assistance in Al Baydha. 20 percent of them are in dire need.¹⁶⁰ According the 2014 Household Budget Survey, the poverty rate in Al-Baydha was 39.2 percent. With the economic downturn, the governorate has faced due to the war, it is likely that the current rate is far higher.¹⁶¹ As of 2017, 39.2 percent of Al-Baydha's population, or 279 228 individuals, were in poverty.¹⁶² Most IDPs have lost their livelihood sources, relying on what the host community and international organizations provide to them. Some IDPs work for daily wages but do not make enough to meet their needs. Food is available in the markets, however, due to the high-cost food is often unaffordable. Most IDPs have not received any humanitarian assistance.¹⁶³ As of 2017, PiN in Al-Baydha included 13 494 IDPs in catastrophic need, 13 929 in extreme need, 10 802 in severe need, 8 774 stressed and 6 525 in minimal need. Regarding non-IDPs in Al-Baydha 164 535 are in catastrophic need, 172 231 are in extreme need, 168 752 are in severe need, 139 236 are stressed and 96 830 are in minimal need.¹⁶⁴
- 171. Food Security: According to the IPC Acute Food Insecurity Analysis October
 2020 June 2021, on a population of 775 404 people, 196 000 are in IPC Phase 1 (Minimal), 241 000 in IPC Phase 2 (Stressed), 245 500 in IPC Phase 3 (Crisis), 94 500 in
 Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 44 percent of the population (340 500 people) are in IPC Phase 3 or higher.¹⁶⁵
- 172. **Instances of Child and Youth Labour:** The prevalence of child labour is rising as qat production becomes more popular. Children often work in qat fields as agricultural

¹⁶¹ https://yemenlg.org/governorates/al-baydha/

 ¹⁵⁶ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1
 ¹⁵⁷ https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi
 d19 update info sharing-27 may 2021.pdf

¹⁵⁸https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility% 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

¹⁵⁹https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

¹⁶⁰ OCHA Humanitarian Response Plan for Yemen 2018, cited in https://yemenlg.org/governorates/albaydha/

¹⁶² https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

¹⁶³ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

¹⁶⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

¹⁶⁵ https://www.refworld.org/pdfid/4d4a68190.pdf

labourers and can be exposed to dangerous pesticides, dangerous agricultural equipment and be made to carry heavy loads.¹⁶⁶

173. **Social Protection:** WB/UNICEF ECT program for SWF beneficiary households and WFP in-kind assistance have the highest number of recipients in Al Baydha's governorates (slightly more than 50 000 and slightly less than 50 000 respectively).¹⁶⁷

AL DHALE'E:

- 174. **Topography & Geology:** The governorate of Al-Dhale'e is one of the Yemeni governorates established after Yemeni unification in 1990. It is located between Ibb and Lahij in the south-central part of the Republic of Yemen and is 250 kilometers from the capital Sana'a. The governorate is divided into nine administrative districts, and the city of Al-Dhale'e is the governorate capital.¹⁶⁸ Al Dhale'e governorate is located in the Sarawat mountain highlands and has relatively low elevations compared with other areas of the mountain range. The basement rocks of the Arabian Peninsula, the Precambrian Shield, are directly visible in parts of Al Dhale'e due to extreme weathering and erosion of mountain tops, which has led to both decreased elevation and exposed Precambrian Shield in the region. Minerals such as talc are prolific in Al Dhale'e and are used in industrial production. Hot springs are also found in the governorate.¹⁶⁹
- 175. **Climate & Meteorology:** Al Dhale'e governorate has three main climates including hot semi-arid climate, hot desert climate and cold semi-arid climate. Average temperatures range from 17.5°C in January and 25.9°C in July. Average annual rainfall measures 469 mm with the lowest amount of rainfall occurring in November and December measuring 7 mm each and the highest amount of rainfall occurring in August with 136 mm. Humidity ranges from 47 percent in June and 66 percent in January. Average annual rainy days are 81 days with 1 day occurring in November and December and 19 days in August.¹⁷⁰
- 176. **Soil Quality:** Al Dhale'e's soils are heavy in uranium and natural radioactive components, specifically around Juban District. These soils may not influence plant growth but could be harmful to humans and livestock.¹⁷¹
- 177. **Land Use:** Agriculture is the main economic activity for most of the population in the governorate with coffee the most important crop. The governorate

¹⁶⁶ https://www.refworld.org/pdfid/4d4a68190.pdf

¹⁶⁷ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

¹⁶⁸ https://yemenlg.org/governorates/al-dhalea/

¹⁶⁹ https://edepot.wur.nl/493427

¹⁷⁰ https://en.climate-data.org/asia/yemen/ad-dali-governorate-2047/r/july-7/

¹⁷¹ https://yemenlg.org/governorates/al-dhalea/

also holds some mineral deposits such as talc, which is used to manufacture paper, paints, beauty products, and pesticides, among other things.¹⁷²

- 178. **Water Resources:** Nearly 70 percent of households did not have access to clean drinking water as of 2016/17 a number that has likely increased.¹⁷³ Al-Hajer Water Project supplies water to the residents of the town of Al-Dhalea, but this project has seen long delays, even from the pre-war days. Water supply has been cut and residents are now relying on water tankers for their supply. Recently, a number of wells, pumps, and main lines in the city have been rehabilitated, and the local authority is trying to complete the rehabilitation of the distribution network. This effort is being supported by Oxfam and Kuwaiti Relief. As for the sanitation network in the city, it only covers 65% of the residents. Sewage water is collected in a treatment plant. Recently, a plot of land was leased for drainage of surplus flows from the treatment plant. Coordination is ongoing with Mercy Corps in an attempt to address this problem.¹⁷⁴
- 179. Irrigation System: Groundwater extraction and runoff irrigation are common in Al Dhale'e. However, water scarcity, falling water tables and increasing fuel costs have impacted the ability of Al Dhale'e's people to access water for irrigation.¹⁷⁵
- 180. **Agroecological Zones & Eco-Regions:** Al Dhale'e falls within the Afrotropical realm and the Southwestern Arabian foothills savanna biome as well as the Desert and Xeric Shrub eco-region. Many habitats in this region are ephemeral, meaning that habitats come-and-go with seasons and weather patterns. For example, water running through wadis can be considered ephemeral and the water is only present when it rains. Communities of animals and plants can also be ephemeral in this region, disappearing when conditions are dry and appearing and thriving when the rain comes.¹⁷⁶ Al Dhale'e is characterized as Western and Central Highland Qat Grain, Fodder, Livestock Zone and the Western and Central Highland Wheat, Sorghum, Qat and Livestock livelihood zones. In these zones sorghum, millet and maize are grown as staple crops while qat is grown as a cash crop and some grains are grown for fodder. Livestock such as sheep, goats and cattle are an important source of livelihoods. Qat is sold locally to traders who distribute it to larger trading centers nationally and in Saudi Arabia.¹⁷⁷

¹⁷² https://yemenlg.org/governorates/al-dhalea/

¹⁷³ OCHA: An Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/al-dhalea/

¹⁷⁴ Interview with one of the leaders of the executive bureau, Dhamar. March 2019 cited in https://yemenlg.org/governorates/al-dhalea/

¹⁷⁵https://reliefweb.int/sites/reliefweb.int/files/resources/Humanitarian%20Update%20%2310_FINAL%2031 %20July.pdf

¹⁷⁶https://web.archive.org/web/20120425205057/http://wwf.panda.org/about_our_earth/ecoregions/about /habitat_types/selecting_terrestrial_ecoregions/habitat13.cfm

¹⁷⁷ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Wheat												
Sorghum												
Qat		-	<u> </u>	i			•	·				
Fodder					ŕ				i i i i i i i i i i i i i i i i i i i			
Grapes												
Livestock												
Milk production					1					1	-	
Livestock sales		1								î		
Other												
Local labor				-				1				
Labor migration	ĺ				ŕ					•	1	
Food purchases												
Rainy Seasons					-			1				

Zone 13: Western and Central Highland Wheat, Sorghum, Qat and Livestock

Zone 10: Western and Central Highland Qat, Grain, Fodder, Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Sorghum and millet												
Maize			i							ĺ –		í i
Qat												
Milk production							i i					í i
Livestock sales		1	1	1								
Other												
Local agricultural labor			i							i i		
Labor Migration		1					-	1				
Food purchases												
Rainy Seasons												

- 181. Biodiversity & Forests: Forests of the Southwestern Arabian foothills savanna biome as well as the Desert and Xeric Shrub eco-region are drought-resistant deciduous woodlands and evergreen woodlands. Drought-resistant deciduous shrublands and grasslands are also common. Fauna includes panthers, caracal, baboons, rock hyrax and hyenas. The largest threat to forests and biodiversity of Al Dhale'e is overgrazing by livestock.¹⁷⁸
- 182. **Protected Areas:** Protected areas could not be found for this governorate.
- 183. Demographics: The governorate of Al Dhale'e is 4 098 km². Total population is 779 656 as of 2019¹⁷⁹ (720 000 people as of 2017 with 344 001 female and 376 001 male residents).¹⁸⁰ Average family size is 6 individuals.¹⁸¹ As of 2019, 33 306 individual IDPs and 5 551 IDP households were located in Al Dhale'e. Almost 100 percent of displacement in Al Dhale'e governorate occurred due to conflict, as opposed to natural

¹⁷⁸ https://www.worldwildlife.org/ecoregions/at1321

¹⁷⁹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Final[3].pdf

¹⁸⁰ 2017 Yemen Central Statistical Organization projections based on the 2004 census cited in https://yemenlg.org/governorates/al-dhalea/

¹⁸¹https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-apr_2016.pdf

disaster.¹⁸² An increase in the number of IDPs within the governorate was reported in Al Dhale'e.¹⁸³ As of 2019, there were 33 792 individual returnees and 5 632 returnee households in Al Dhale'e.¹⁸⁴

- 184. Education: In Yemen, the literacy rate among the population aged 15 years and older is 54.1 percent (73.2 percent among males and 35 percent among females). Between 15 and 24 years old the literacy rate is 77 percent (92.8 percent among males and 60.6 percent among females). Among people 65 years and older the literacy rate is 13.7 percent (25.7 males and 1.5 percent among females). 4 781 367 people (1 395 248 men and 3 386 119 women) aged 15 years and older and 958 315 people between 15 and 24 years old (150 671 male and 807 644 female residents) are illiterate.¹⁸⁵
- 185. Education is generally stable and continuing in schools left intact by fighting but has been disrupted by displacement and destruction elsewhere. 83 schools have been damaged by war.¹⁸⁶ Several schools damaged by fighting have been rehabilitated, yet overall, the governorate is experiencing over-crowding in classrooms caused by the loss of facilities coupled with ongoing displacement.¹⁸⁷
- 186. **Health:** There have been attempts to provide basic services in Al Dhale'e, but this has succeeded at best in providing the bare minimum due to lack of funds, destruction of infrastructure, and ongoing fighting. Health services, for example, are provided by the main public hospital in the city of Al Dhale'e and several hospitals and health centers in the districts supported by the central government, the local authority, and some international donors. However, the services provided do not meet the increasing needs of the population considering internal displacement and associated crowding and malnutrition. Recently, the government built a new hospital in the governorate and efforts are ongoing to furnish and operate it in cooperation with donors.¹⁸⁸ 60 058 cases of Cholera and 112 deaths (CFR 0.19 percent) were reported in Al Dhale'e, from 27 April 2017 to 31 August 2019.¹⁸⁹ As of 31 May 2021, in Al Dhale'e, 217 COVID-19 total cases were reported, 43 deaths and 29 recovered.¹⁹⁰

¹⁸²https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0.pdf

¹⁸³Ibid.

¹⁸⁴Ibid.

¹⁸⁵ http://uis.unesco.org/en/country/ye?theme=education-and-literacy

¹⁸⁶ OCHA An Overview of the Humanitarian Needs in Yemen 2018 cited in

https://yemenlg.org/governorates/al-dhalea/

¹⁸⁷ Interview with one of the leaders of executive bureau, Al-Dhalea. March 2019, cited in https://yemenlg.org/governorates/al-dhalea/

¹⁸⁸ Interview with one of the leaders of executive bureau, Al-Dhalea. March 2019, cited in https://yemenlg.org/governorates/al-dhalea/

¹⁸⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
¹⁹⁰ https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi
d19_update_info_sharing-27_may_2021.pdf

- 187. **Poverty Profile:** According to the 2014 Household Budget Survey, the poverty rate in Al Dhale'e was 59.8 percent. In light of economic decline, large-scale displacement, and the conflict frontline running through the governorate, this rate has doubtlessly increased significantly during the past few years.¹⁹¹ According to OCHA's 2018 Humanitarian Response Plan for Yemen, there are nearly 500 000 people, or about 70 percent of the governorate's population, in need of assistance; 53 percent of them are in dire need.¹⁹² As of 2017, 59.8 percent of Al-Dhale'e's population, or 391 412 individuals, were in poverty.¹⁹³ As of 2017, PiN in Al-Dhale'e included 54 792 IDPs in catastrophic need, 45 229 in extreme need, 28 901 in severe need, 17 858 stressed and 15 199 in minimal need. Regarding non-IDPs in Al-Dhale'e 82 124 are in catastrophic need, 222 192 are in extreme need, 156 238 are in severe need, 107 027 are stressed and 88 949 are in minimal need.¹⁹⁴
- 188. Food Security: AI Dhake's had "very high" (≥40 percent) prevalence of inadequate food consumption during March 2021 (57%).¹⁹⁵ Food was the main need for the greatest proportion of households in AI-Dhale'e, as opposed to shelter/housing and financial services.¹⁹⁶ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, in a population of 779 656 people, 180 00 are in IPC Phase 1 (Minimal), 211 500 in IPC Phase 2 (Stressed), 253 000 in IPC Phase 3 (Crisis), 134 000 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 50 percent of the population (387 000 people) are in IPC Phase 3 or higher.¹⁹⁷
- 189. Instances of Child and Youth Labour: Child labour related to qat also occurs in Al Dhale'e. Qat production is becoming increasingly popular in Yemen due to high market value. This means that a labour force is needed to work in qat fields which sometimes ends up being children. Children working in qat fields can be exposed to dangerous agricultural equipment and pesticides and can form a habit of consuming qat themselves.^{198,199}
- 190. **Social Protection:** The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen community resilience in 13 of Yemen's most vulnerable

¹⁹¹ https://yemenlg.org/governorates/al-dhalea/

¹⁹² https://yemenlg.org/governorates/al-dhalea/

¹⁹³ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

¹⁹⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

¹⁹⁵ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

¹⁹⁶https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

¹⁹⁷http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

¹⁹⁸ https://www.refworld.org/pdfid/4d4a68190.pdf

¹⁹⁹ https://www.dol.gov/sites/dolgov/files/ILAB/pdf_override/Yemen_ACCESSPLUS_CLOSED_0.pdf

governorates, including Al-Dhale'e.²⁰⁰ The WB/UNICEF ECT program for SWF beneficiary households and the WFP in-kind assistance program have the highest number of recipients in Al Dhale'e's governorates (slightly less than 50 000 and slightly more than 50 000 respectively).²⁰¹

AL HUDAYDAH:

- 191. **Topography & Geology:** The Governorate of Al Hudaydah is located in the far west of the Republic of Yemen, along the Red Sea coast. It is 226 kilometers west of the capital city of Sana'a. The governorate is divided into 26 districts, and the city of Al-Hudaydah is the governorate's capital.²⁰² Al Hudaydah is part of the Tihamah region, the coastal plain running down the west coast of Yemen and Saudi Arabia, along the Red Sea.²⁰³ The topography of this governorate is mostly flat and consist of plains. Al Hudaydah's geology consists of alluvial fans and alluvial plains deposits. Alluvial fans are found at the bottom of mountains and are caused by water flowing down mountain slopes and depositing sediments at the bottom; alluvial fans are found in the east of Al Hudaydah at the base of the Sarawat mountains. Alluvial plains form in broad, flat areas and are formed when sediments from the highlands are deposited through water flows. Dunes are also found in Al Hudaydah where the ground is flat and level. It is believed that the sand to form dunes comes from wadi beds.²⁰⁴
- 192. **Climate & Meteorology:** Al Hudaydah has a hot and aridic climate. Average temperatures in January, the coldest month of the year, have a high of 30° C and a low of 18° C. Average temperatures in July, the hottest month of the year, measure a high of 39° C and a low of 27° C. Precipitation in Al Hudaydah is slow with an average of about 11 days a year, with 0 precipitation days in December and 4.9 days in July.²⁰⁵
- 193. **Soil Quality:** Al Hudaydah's soils are isohyperthermic and aridic.²⁰⁶ Isohyperthermic soils are the hottest soils on Earth and measure above 22° C.²⁰⁷ Aridic soils are hot and dry and occur in aridic climates. Irrigation is required in aridic soils in order to produce crops.^{208,209}
- 194. **Land Use:** Agriculture constitutes the main economic activity in the Governorate of Al Hudaydah. The governorate is the biggest agricultural producer in the

²⁰⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

²⁰¹ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

²⁰² https://yemenlg.org/governorates/al-hodeidah/

²⁰³ https://www.britannica.com/place/Tihamat-al-Yaman

²⁰⁴ https://edepot.wur.nl/493427

²⁰⁵ https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/al-hudaydah_yemen_79415

²⁰⁶ https://edepot.wur.nl/493427

²⁰⁷ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

²⁰⁸ https://lawr.ucdavis.edu/classes/ssc120/acrobats/smr.pdf

²⁰⁹http://www.soilinfo.psu.edu/index.cgi?soil_clim&information&general&taxonomy_defs&soil_moist_regim es&classes&aridic

country, accounting for more than one quarter of total agricultural production. The most important crops produced in Al Hudaydah are vegetables, fruits, and fodder. Al Hudaydah port, alongside Aden port, is one of the main commercial ports of the country. The most important minerals found in the governorate are granite, black sand, dyes, ceramics, rock salt, gypsum, and some other clay minerals.²¹⁰

- 195. Water Resources: Like much of Yemen, Al Hudaydah is water scarce. Most water in the governorate comes from groundwater supplies and is accessed through boreholes, dug wells, artisan wells, handmade protected wells, handmade unprotected wells, unprotected springs and piped water networks. Major barriers to water access include depletion of water sources, damage of water infrastructure due to conflict, increase in population due to influx of IDPs, absence of water allocation rights and laws and contamination of water resources which can lead to disease. Al Hudaydah's water quality ranges from clean to salty and/or turbid as a result of high calcite content.²¹¹ As for drinking water, 88 percent of households in Al Hudaydah governorate had access to potable water in the year 2016/2017.²¹² This percentage declined sharply due to the military escalation during 2018. Donors are working with local corporations to support sewage treatment, rehabilitation of wastewater collection, transportation of water by tankers, installation of water tanks for public access, building emergency latrines, and distributing hygiene supplies and water purification to IDP households in Al Hudaydah.²¹³ According to UNICEF, emergency WASH services were provided to 120,000 IDPs in Hajjah, Al Hudaydah, Ibb, Dhamar and Amran Governorates, with the installation of solar pumping units in 56 locations. From this assistance, 120,000 people in rural areas have improved access to water supply, without dependence on fuel.²¹⁴
- 196. Irrigation System: Al Hudaydah relies on wadi irrigation as well as groundwater extraction to irrigate crops. Agriculture puts a lot of pressure on already precarious Al Hudaydah's water supply and can take up to 90 percent of utilized water.²¹⁵
- 197. **Agroecological Zones & Eco-Regions:** Al Hudaydah is located in the Afrotropical realm and the Arabian Peninsula coastal fog desert biome eco-region. This biome eco-region is found along the western and southern coast of the Arabian Peninsula and is characterized by high humidity in the summer, a result of the Khareef monsoon.²¹⁶ The governorate is characterized under the Greater Yemen Coastal and Island Fishing, the Western Coastal Plain Sorghum Millet and Livestock Zone and

²¹² OCHA: An Overview of the Humanitarian Needs in Yemen 2018, cited in

²¹³ UNICEF, A report on the humanitarian situation in Yemen, October 2018, p. 5 & 7, cited in https://yemenlg.org/governorates/al-hodeidah/

²¹⁰ https://yemenlg.org/governorates/al-hodeidah/

²¹¹https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/WASH% 20cluster_Needs_Assessment_Amran_Hajjah_Hudaydah_Raymah_Oct2012.pdf

https://yemenlg.org/governorates/al-hodeidah/

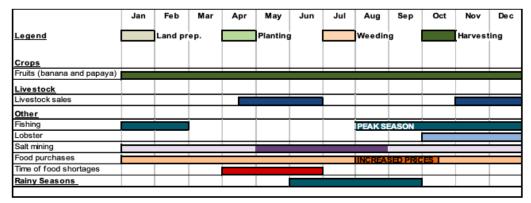
²¹⁴ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

²¹⁵https://web.archive.org/web/20100308064354/http://www.nationalgeographic.com/wildworld/profiles/t errestrial/at/at1302.html

²¹⁶https://web.archive.org/web/20100308064354/http://www.nationalgeographic.com/wildworld/profiles/t errestrial/at/at1302.html

Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock livelihood zones. The Greater Yemen Coastal and Island Fishing Zone includes all of Yemen's coast line. Under this zone, livelihoods rely on fishing to meet food and cash needs. Livestock keeping, to supplement fishing, is also common in this zone. Communities within the Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone rely on sorghum, maize, millet and vegetables both as sustenance and cash crops. Crops in this region rely on wadi irrigation. Livestock rearing is essential to supplement crop production. In the Western Coastal Plain Sorghum Millet and Livestock Zone, sorghum and millet are grown as food and cash crops while cotton is also produced as a cash crop.²¹⁷

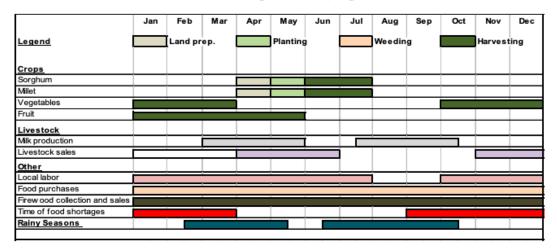




Zone 14: Western Coastal Plain Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Sorghum								ľ				
Millet							1	r				
Cotton (some areas)												
Livestock												
Milk production				1				1				
Livestock sales		1										
Other												
Local labor					·			ľ				_
Food purchases							4	İ				
Time of food shortages												
Rainy Seasons												
Rainy Seasons												

²¹⁷ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf



Zone 11: Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock

- 198. **Biodiversity & Forests:** The Arabian Peninsula coastal fog desert biome's forests consist of acacia thick woodlands in areas of fog. Even though rain is minimal in this governorate, fog serve to provide moisture and support a thriving plant community. Grasslands and shrublands are also common in this region. Arabian oryx, Nubian ibex, Arabian wolf, striped hyena, Arabian gazelle and goat antelope can be found in Al Hudaydah.²¹⁸
- 199. **Protected Areas:** Al Hudaydah is home to the Bura'a UNESCO-MAB Biosphere Reserve. The reserve is named after the granite cliff massif, Jabal Bura'a. The reserve is located in a mountainous region home to rare and vulnerable endemic plant species. A large number of bird species and reptiles such as freshwater turtles and the Yemeni monitor lizard can be found here. Traditional agro-forestry systems are still practices in this region.^{219,220,221} Al Hudaydah is also home to the Ras Isa marine park, located near Ras Isa port and the Ras Isa oil pipeline.^{222,223}
- 200. **Demographics:** The governorate of Al Hudaydah is 13 249 km². Total population is 2 985 122 people as of 2019²²⁴ (3 189 000 people as of 2017 with 1 549

²¹⁸https://web.archive.org/web/20100308064354/http://www.nationalgeographic.com/wildworld/profiles/t errestrial/at/at1302.html

²¹⁹ http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/arab-states/yemen/bura-a/

²²⁰ https://en.unesco.org/silkroad/silk-road-themes/biosphere-reserve/buraa

²²¹<u>https://www.google.com/maps/place/Jabal+Bura/@14.9562857,43.1093446,9z/data=!4m13!1m7!3m6!1s</u> 0x160525d93392cd3b:0x73878d34a668b264!2sAl+Hudaydah+Governorate,+Yemen!3b1!8m2!3d15.3053072 !4d43.0194897!3m4!1s0x16048cc73a954cb9:0xa00b7fc74d6922eb!8m2!3d14.9510873!4d43.497448 ²²² https://www.protectedplanet.net/17188

²²³ https://www.findaport.com/port-of-ras-isa-marine-terminal

²²⁴http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

000 female and 1 640 000 male residents).²²⁵ Average family size is 6 individuals.²²⁶ Between June and December 2018, Al Hudaydah (511 314 individuals) (as well as HaJjah, 157 122 individuals) experienced high levels of displacement due to conflict along the Western coast. Fighting in Al Hudaydah exacerbated the humanitarian situation in the governorate and led to mass displacement. Between June and October 2018, nearly 425 000 people were forced to flee their homes. Since the beginning of the war, almost 10 000 people have been killed in Al Hudaydah,²²⁷ and in January 2019 the number of displaced persons reached close to one million people.²²⁸ As of 2019, 362 292 individual IDPs and 60 382 IDP households were located in Al Hudaydah. 100 percent of displacement in Al Hudaydah governorate occurred due to conflict, as opposed to natural disaster.²²⁹ An increase in the number of IDPs within the governorate was reported.²³⁰ As of 2019, there were 24 660 individual returnees and 4 110 returnee households in Al Hudaydah.²³¹

201. **Education:** In Al Hudaydah one third of all schools are closed due to fighting²³² and in the worst areas only one in three students can continue attending school while less than one quarter of teachers are present in school.²³³ The district that presented the lowest school attendance rate in Yemen was Ad Durayhimi in Al Hudaydah (0 percent, together with Maswarah in al Bayda).²³⁴ The primary education challenge in Al Hudaydah is the non-payment of salaries to teachers, as 51 percent of teachers have not been paid since 2016²³⁵ though some salary payments resumed in 2019.²³⁶ Support for teacher incentives is the most critical and urgent need for the upcoming school year. Access to education for children is at stake due to non- payment of salaries for more than two years. This is having a serious impact on schools, teacher performance and

²²⁷ <u>https://www.acleddata.com/2019/06/18/yemen-snapshots-2015-2019/</u>, cited in https://yemenlg.org/governorates/al-hodeidah/

 ²²⁵ 2017 Yemen Central Statistical Organization projections based on the 2004 census cited in https://yemenlg.org/governorates/al-hodeidah/
 ²²⁶

https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_-_apr_2016.pdf

²²⁸ World Health Organization, Situation Report: December 2018 & January 2019, Yemen Conflict, p. 2., cited in https://yemenlg.org/governorates/al-hodeidah/

²²⁹https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_-_apr_2016.pdf

²³¹https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

²³² https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

²³³ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

²³⁴ Ibid.

²³⁵ Ibid.

²³⁶ Economic Studies and Forecast Sector in the Ministry of Planning and International Cooperation, Economic and Social Development In Yemen Newsletter, Issue No.30, December 2017, cited in https://yemenlg.org/governorates/al-hodeidah/

access to education. UNICEF continued the provision of cash incentives to teachers who are not in receipt of salary. In addition, at least 21 schools have been damaged by the war.²³⁷ This has disrupted education. Many households fear sending their children to school for security reasons, and the displacement of many teachers from the city to other areas has led to staff shortages.²³⁸ Since the Stockholm Agreement, a de-escalation of the military situation and the resumption of salary payments to teachers in the governorate by the Hadi government has contributed to a gradual return to normal operations.²³⁹

- 202. **Health:** Eleven health facilities in the governorate have closed, and large numbers of doctors have left the governorate due to lack of salary payments and the deteriorating security situation. Even nominally functioning health facilities were working at minimum capacity.²⁴⁰ Health services provided in hospitals and health centers rely mainly on support by donor organizations.²⁴¹
- 203. Roughly 58 639 children under one year of age were vaccinated against major childhood diseases while 21 523 women aged 14-59 years have been vaccinated against Tetanus and Diphtheria through the third round of Integrated Outreach Activities that was conducted in Al Hudaydah.²⁴² 295 001 cases of Cholera and associated 380 deaths (CFR 0.13 percent) were reported in Al Hudaydah from 27 April 2017 to 31 August 2019.²⁴³ From 28 December 2020 to 28 March 2021, a total of 14 246 suspected cases of AWD/Cholera were reported from northern governorates along with 2 associated deaths in Yemen. Within the last 3 epidemiological weeks, suspected cases were reported nationally, with 17 percent of these being reported from Al Hudaydah governorate. According to UNICEF, between 20 October - 10 November 2019, 26 deaths associated with dengue fever were reported from Al Hudaydah (as well as Taiz and Hajjah).²⁴⁴ From 28 December 2020 to 28 March 2021, a total of 1 396 suspected cases of dengue fever were reported from northern governorates along with one associated death in Yemen.²⁴⁵ Additionally, the percentage of adults and children suffering from nervous disorders and depression is extremely high: 100 percent for both adults and children in the Ad Duraydah district, 96 percent and 98 percent respectively in the Az Zaydiyah

²³⁷ OCHA (An Overview of the Humanitarian Needs in Yemen 2018), cited in https://yemenlg.org/governorates/al-hodeidah/

²³⁸ OCHA, Yemen: An update on the Governorate of Hodeidah, situation report No. 13, 2-15 October 2018, p. 1., cited in https://yemenlq.org/governorates/al-hodeidah/

²³⁹ Interview with one of the leaders of the executive bureau, Hodeidah. March 2019, cited in https://yemenlg.org/governorates/al-hodeidah/

²⁴⁰ OCHA, Yemen: An update on the Governorate of Hodeidah, situation report No. 13, 2-15 October 2018, p.
1. cited in https://yemenlg.org/governorates/al-hodeidah/

²⁴¹ Interview with senior executive bureau official in Hodeidah. March 2019, cited in https://yemenlg.org/governorates/al-hodeidah/

²⁴² https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

 ²⁴³ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
 ²⁴⁴ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

²⁴⁵ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1

district.²⁴⁶ As of 24 May 2021, Al Hudaydah had not been affected by the COVID-19 pandemic.²⁴⁷

- 204. **Poverty Profile:** According to the 2014 Households Budget Survey, 58.1 percent of residents of the governorate were under the poverty threshold. Since Al Hudaydah has been a site of active fighting with hundreds of thousands displaced, this rate has dramatically increased during the past few years of the war. Current estimates suggest that the poverty rate may well have reached 80-90 percent in the governorate.²⁴⁸ The Interim Food Security Classification for 2019 ranks Al Hudaydah as the governorate with the highest levels of poverty in Yemen.²⁴⁹ According to OCHA, 2.65 million people needed assistance in Al Hudaydah in 2019, or nearly 70 percent of the population.²⁵⁰
- 205. In May 2020, UNICEF, with UNFPA and WFP, provided Rapid Response Mechanism (RRM) kits to 28 880 IDPs in Al Hudaydah (as well as Sana'a, Aden, Sa'ada and Ibb). RRM kits intend to meet the most critical and immediate needs of displaced families, which include food, family basic hygiene kits, and female dignity kits – as IDP are often uprooted suddenly from their homes without time to take anything with them. UNICEF partners also provided other life-saving interventions for IDPs, to complement the provision of RRM kits. Although the supply movement remains challenging due to long pre-approval processes and delays in receiving required clearances and permissions, in May 2020 supplies worth \$2.3 million including PPE, AWD kits, pharmaceuticals, medical supplies, hospital equipment, education materials, and readyto-use therapeutic food arrived from Djibouti and Oman to Sana'a and Al Hudaydah.²⁵¹
- 206. People's lives remain impacted every day by fighting, and thousands are being displaced from their homes and displacement sites.²⁵² As of 2017, 58.1 percent of Al Hudaydah's population, or 1 685 621 individuals, were in poverty. PiN in Al Hudaydah include 171 749 IDPs in catastrophic need, 122 556 in extreme need, 60 355 in severe need, 41 158 stressed and 29 241 in minimal need. Regarding non-IDPs in Al Hudaydah 1 007 668 are in catastrophic need, 749 005 are in extreme need, 380 285 are in severe need, 251 824 are stressed and 182 493 are in minimal need.²⁵³

²⁴⁹ https://yemenlg.org/governorates/al-hodeidah/

²⁴⁶https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

²⁴⁷https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

²⁴⁸ Interview with senior executive bureau official in Hodeidah. March 2019, cited in <u>https://yemenlg.org/governorates/al-hodeidah/</u>

²⁵⁰ OCHA, 2019 Humanitarian Needs Overview: Yemen, December 2018, cited in https://yemenlg.org/governorates/al-hodeidah/

²⁵¹ https://www.unicef.org/media/77581/file/Yemen-SitRep-May-2020.pdf

²⁵² https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

²⁵³ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

- 207. **Food Security:** Six governorates in Yemen have acute malnutrition rates that exceed the 15 percent WHO emergency threshold, including Al Hudaydah.²⁵⁴ Food was the main need for the greatest proportion of households in Al Hudaydah, as opposed to shelter/housing and financial services.²⁵⁵ Acute Wasting by Mid-Upper Arm Circumference (MUAC) was detected in 21 percent of children aged 6-59 months screened in March 2021, with the highest rates recorded in Al Hudaydah (as well as Taiz).²⁵⁶ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, on a population of 2 985 122 people, 667 500 are in IPC Phase 1 (Minimal), 950 500 in IPC Phase 2 (Stressed), 924 000 in IPC Phase 3 (Crisis), 446 000 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 46 percent of the population (1 370 000 people) are in IPC Phase 3 or higher.²⁵⁷
- 208. **Instances of Child and Youth Labour:** In Al Hudaydah, child labour can take the form of dangerous work in welding and glass shops and can have serious consequences for health due to ingestion of toxic particles. Children working in welding and glass shops, as well as those working in quarries and as stone-cutters, are particularly susceptible to exploitation by gangs and exposure to habits such as smoking and chewing qat.²⁵⁸
- 209. **Social Protection:** The total number of beneficiary households in the Hudaydah's governorate is around 525 000, the third highest after Hajjah and Taiz. The WB/UNICEF ECT program for SWF beneficiary households and WFP in-kind assistance have the highest number of recipients in Al Hudaydah's governorate (more than 100 000 the former, around 100 000 the latter), and the WFP Food vouchers have approximately 100 000 recipients.²⁵⁹

AL JAWF:

210. **Topography & Geology:** The Governorate of Al-Jawf is located 143 kilometers to the northeast of the capital Sana'a along the Yemeni-Saudi border. Al-Jawf is divided into 12 administrative districts, and the city of Al-Hazm is the governorate's capital.²⁶⁰ Al Jawf is partially located in the Rub al Khali (the largest area of continuous sand in the world), or Empty Quarter, and the eastern reaches of the Sarawat Mountain

²⁵⁴https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/yem en_hno_2021_final_version_1.pdf

²⁵⁵https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

²⁵⁶https://reliefweb.int/sites/reliefweb.int/files/resources/WHO%20March%202021%20Situation%20Report_ English.pdf

²⁵⁷http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

²⁵⁸ https://www.refworld.org/pdfid/4d4a68190.pdf

²⁵⁹ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

²⁶⁰ https://yemenlg.org/governorates/al-jawf/

Range. To the west, the governorate is comprised of low-elevation highlands while the eastern portion of the governorate is desert. Rub al Khali is a sedimentary basin covering a large portion of the Arabian shelf. The sands of the desert are orange in color due to feldspar, a group of minerals containing alumina and silica. Quartz sands are also present. Dunes are common and range from large dune mountains to solitary barchan dunes and longitudinal dunes. Calcium, carbonate and clays can be found in certain areas of the desert region and are relics of ancient lake beds.²⁶¹

- 211. **Climate & Meteorology:** The governorate has a largely arid climate and is characterized into hot desert climate and cold desert climate.²⁶² Average temperatures range from 18.5° C in December to 29.3° C in June. Average annual rainfall is 45 mm with 0 mm in September, November and December and 16 mm in August. Precipitation falls over an average of 10 days a year with 0 days in September, October, November, December and January and 4 days in August, which has the highest number of rainy days in the year. Average humidity ranges from 20 percent in October to 39 percent in August.²⁶³
- 212. **Soil Quality:** Al Jawf's soils are considered fertile. Terracing in this region is common and serves to conserve soil and water content from erosion and runoff. The soils are derived from crystalline rocks and have a high mineral content, making them good for crop production.²⁶⁴
- 213. Land Use: Agriculture and livestock breeding are the main economic activities in Al-Jawf. The governorate is the sixth largest producer of crops in Yemen, accounting for 5.8 percent of total agricultural production, with cereals, vegetables, fruits, coffee and fodder being the most important crops. It hosts several tourist sites, including important historic sites.²⁶⁵ The Al-Jabali mine in Al-Jawf exploits the governorate's silver and zinc deposits.
- 214. **Water Resources:** Water is severely limited in Al Jawf. Most water comes from groundwater extraction, which is becoming increasingly challenging due to falling water tables and shortage of fuel. Recent projects by international organizations have focused on implementing solar-run water pumps in this region.²⁶⁶ As for drinking water, more than 75 percent of the governorate's population does not have access to safe drinking water.²⁶⁷ The local authority does not provide water, so the population depends

²⁶¹ https://edepot.wur.nl/493427

²⁶² https://yemenlg.org/governorates/al-jawf/

²⁶³ https://en.climate-data.org/asia/yemen/al-jawf-governorate-2051/r/july-7/

²⁶⁴ https://www.britannica.com/place/Arabian-Desert/Climate

²⁶⁵ <u>https://www.yemenna.com/index.php?go=quide&op=show&link=jaof</u>, cited in https://yemenlg.org/governorates/al-jawf/

²⁶⁶ https://www.unicef.org/yemen/stories/wave-innovation-brings-safe-water-communities-saada-and-aljawf

²⁶⁷ OCHA: An Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/al-jawf/

entirely on private suppliers, including in the capital city. Al-Hazm also does not have a sewage network and the population relies on traditional waste disposal methods.²⁶⁸

- 215. **Irrigation System:** The majority of Al Jawf's irrigation comes from groundwater, with surface water and non-conventional irrigation methods also used. Approximately, 37 275 hectares are irrigated with groundwater, 14 178 hectares irrigated with surface water and 404 hectares irrigated with non-conventional methods.²⁶⁹
- 216. **Agroecological Zones & Eco-Regions:** Al Jawf is part of the Afrotropical realm and the desert and xeric shrubland biome eco-region. This region is characterized by an arid climate and desert flora and fauna.²⁷⁰ Al Jawf falls under the Central and Eastern Wadi Palm, Wheat, Vegetable and Livestock; the Eastern Plateau Sorghum, Millet and Livestock and the Northern and Eastern Desert Pastoral livelihood zones. In the Central and Eastern Wadi Palm, Wheat, Vegetable and Livestock zone – wheat, sorghum and dates are produced as food and cash crops. In the Eastern Plateau Sorghum, Millet and Livestock Zone – millet, sorghum, wheat and sesame are produced as food crops while sesame and fenugreek and produced as cash crops. In the Northern and Eastern Desert Pastoral Zone, wheat and sorghum are the main food crops.²⁷¹

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend												
Livestock												
Milk production								-				
Livestock sales												
Livestock migration										i i		
Livestock mating												
Other												
Labor migration												
Rainy Seasons											-	

Zone 8: Northern and Eastern Desert Pastoral

²⁶⁸ Interview with one of the community leaders and a political activist in decentralization in the governorate of Al-Jawf. March 2019, cited in https://yemenlg.org/governorates/al-jawf/

²⁶⁹ https://storage.googleapis.com/fao-aquastat.appspot.com/irrigation/docs/YEM-gmia.pdf

²⁷⁰ https://www.britannica.com/place/Arabian-Desert/People

²⁷¹ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

Zone 6: Eastern Plateau Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	1		Weedin	g		Harvest	ing
Crops												
Sorghum									1			
Millet												
Sesame							1					
Livestock		-										
Milk production							2	2	2	í		
Livestock sales												
Other												
Local labor							i					
abor migration to Saudi Arabia							1					
Food purchases							1					
Firew ood collection and sale												
Time of food shortages												
Rainy Seasons												

Zone 4: Central and Eastern Wadi Palm, Wheat, Vegetable and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Wheat											1	
Sorghum (season 1)					i i		i					
Sorghum (season 2)											·	
Millet								i				
Onions					·					· · · · ·		
Tomatoes									i			
Potatoes												
Dates								i i				
Livestock												
Milk production				î	ŕ		i			·	i	
Livestock sales				1	1							
Livestock migration					4		i				i	
Livestock mating						1		i			•	1
Other												
Local labor			1	İ							i	1
Labor migration				1	1					•	1	
Honey sales		1						1				
Trade			1									1
Remittances					· ·						·	
Food purchases												
Time of food shortages												
Rainy Seasons										i i		

217. **Biodiversity & Forests:** Most plants in Al Jawf are xerophytic, meaning that they can survive long periods without water and are structurally adapted to limited water supply. Sedges, tamarisk trees and plants in the caper, mustard, pea, daisy, iris and milkweed families are also found here. A rare shrub known as rāq, or arāq, otherwise known as the toothbrush bush, can be found in this area and was once used by humans to polish teeth. Frankincense and myrrh are also found in Al Jawf as well as date palms. The region supports a wide range of fauna such as dung beetles, locusts, scorpions, lizards and geckos, vipers, eagles, peregrine falcons, gazelles and wild goat just to name a few.²⁷²

²⁷² https://www.britannica.com/place/Arabian-Desert/Climate

218. **Protected Areas:** Protected areas could not be found for this governorate.

- 219. **Demographics:** The governorate of Al Jawf is 39 495 km^2. Total population is 603 816 people²⁷³ (589 000 people as of 2017 with 262 000 female and 327 000 male residents).²⁷⁴ Average family size is 6 individuals.²⁷⁵ As of 2019, 150 090 individual IDPs and 25 015 IDP households were located in Al Jawf. More than 90 percent of displacement in Al Jawf governorate occurred due to conflict, as opposed to natural disaster.²⁷⁶ A decrease in the number of IDPs within the governorate was reported.²⁷⁷ As of 2019, there were 57 066 individual returnees and 9 511 returnee households in Al Jawf.²⁷⁸ In March, 30 317 IDPs were displaced, with most displacement waves coming from Al Jawf (as well as Ma'rib, Al Hodeidah and Taiz), as internal displacement within governorates towards safer districts increased.²⁷⁹
- 220. **Education:** Conflict has taken a toll on education. Forty-three schools have been damaged as a result of the fighting in Al Jawf and teachers' salaries are only being paid in part. This has caused instability in the education system, especially in the early years of the war and specifically in districts under the control of Ansar Allah. Recently, the government made back payments for teachers in various districts of the governorate, contributing to relative improvements in teachers' presence in schools.²⁸⁰ In Al Jawf (and Aden Governorate), UNICEF provided psychosocial support (PSS) to 468 people.²⁸¹
- 221. Health: There are several hospitals and health centers in Al Jawf providing health services to the population. One of the key hospitals – Al-Hazm General Hospital – provides free health services with funding from the Kingdom of Saudi Arabia. In addition, several donor organizations aid health services. However, there is no local funding for the health sector and the current level of service is insufficient to meet the needs of the population, especially with outbreaks of epidemics such as cholera, which require

²⁷³http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

²⁷⁴ https://yemenIg.org/governorates/al-jawf/
275

https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_-_apr_2016.pdf

²⁷⁶https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0
.pdf
277

https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_-_apr_2016.pdf

²⁷⁸https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

²⁷⁹ https://www.unicef.org/media/98951/file/Yemen-Humanitarian-SitRep-March-2021.pdf

²⁸⁰ Interview with one of the community leaders and a political activist in decentralization in the governorate of Al-Jawf. March 2019, cited in https://yemenlg.org/governorates/al-jawf/

²⁸¹ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

patients either to travel to Marib or abroad to seek treatment.²⁸² 29 638 cases of cholera and 46 related deaths (CFR 0.16 percent) were reported in Al Jawf from 27 April 2017 to 31 August 2019.²⁸³ According to UNICEF, roughly 58 639 children under one were vaccinated against the major childhood diseases, and 21 523 women aged 14-59 years were vaccinated against Tetanus and Diphtheria through the third round of Integrated Outreach Activities that was conducted in Yemen's governorates, including Al Jawf.²⁸⁴ As of 24 May 2021, Al Jawf had not been affected by the COVID-19 pandemic.²⁸⁵

222.

Poverty Profile: According to the 2014 Households Budget Survey, the poverty rate in Al-Jawf was 55.4 percent of Al-Jawf population, or 305,807 individuals, were in poverty.²⁸⁶.

- 223. Food Security: Al Jawf had "very high" (≥40 percent) prevalence of inadequate food consumption during March 2021 (56%).²⁸⁷ Food was the main need for the greatest proportion of households in Al Jawf, as opposed to shelter/housing and financial services.²⁸⁸ The caseload in Catastrophe (IPC Phase 5) is mainly found in Al Jawf (as well as Hajjah and Amran). In Al Jawf and Hajjah, conflict, displacement and limited humanitarian access are the main drivers.²⁸⁹ Food insecurity is more severe in areas with active fighting or bordering areas with limited access and is particularly affecting IDPs and marginalized groups. Conflict is the principal driver of food insecurity in Yemen leading to widespread displacement, humanitarian access constraints, disruption of public services, ports blockade and restrictions, fuel crisis and economic disruption. Without a permanent solution, it is unlikely that all other mitigation measures will have long-lasting effects. According to the IPC Acute Food Insecurity Analysis October 2020 -June 2021, on a population of 603 816 people, 77 000 are in IPC Phase 1 (Minimal), 149 500 in IPC Phase 2 (Stressed), 242 500 in IPC Phase 3 (Crisis), 126 000 in Phase 4 (Emergency) and 10 000 in Phase 5 (Catastrophe). 63 percent of the population (378 500 people) is in IPC Phase 3 or higher.²⁹⁰
- 224. **Instances of Child and Youth Labour:** Human trafficking of children occurs in governorates bordering Saudi Arabia. Children are stolen from homes and

²⁸² Interview with one of the community leaders and a political activist in decentralization in the governorate of Al-Jawf. March 2019, cited in https://yemenlg.org/governorates/al-jawf/

 ²⁸³ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
 ²⁸⁴ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

²⁸⁵https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

²⁸⁶ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

²⁸⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

²⁸⁸https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

²⁸⁹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Yemen_Acute_Food_Insecurity_2020Oct2
021June_Snapshot.pdf

²⁹⁰http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

communities and taken across the border to Saudi Arabia to be sold for forced labour and forced prostitution. Criminal organizations also use trafficked children to carry out illegal activities in both Yemen and Saudi Arabia.²⁹¹

225. **Social Protection:** The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen community resilience in 13 of Yemen's most vulnerable governorates, including Al Jawf.²⁹² The WB/UNICEF ECT program for SWF beneficiary households and WFP in-kind assistance have the highest number of recipients in Al Jawf's governorate (around 50 000 the former, around 25 000 the latter). Also, WFP Food vouchers have almost 100 000 recipients.²⁹³

AMRAN:

- 226. **Topography & Geology:** Amran governorate is located in the inland highlands in the west of Yemen, just north of Sana'a. The governorate's topography covers mountains, plains and plateaus. Amran's mountains are part of the Sarawat Mountain Range, comprised of the Arabian-Nubian Shield an exposure of Precambrian crystalline rock running down the coast of the Red Sea. Volcanic rock comprises the majority of Amran's geology.²⁹⁴ The Amran geologic series dates from the Mesozoic and contains fossiliferous blue and gray limestone, marl and calcareous shale and sandstone.²⁹⁵
- 227. **Climate & Meteorology:** Amran's climate remains consistent throughout the year. Average temperature in mid-summer is 23.4°C while mid-winter measures 15.7°C. Rainfall in mm ranges from 1 mm in November and December to 45 mm in August, with up to 12 rainy days in August and 36 days annually. Humidity ranges from 23 percent in October to 59 percent in August.²⁹⁶ Summer rains are caused by southwestern monsoons which blow damp air into the highlands causing thunderstorms and precipitation.²⁹⁷
- 228. **Soil Quality:** Amran's soils are isothermic and aridic. Isothermic soils have an annual mean temperature of 15°C to 22 °C and 5 °C mean temperature difference between summer and winter. Soils in the aridic soil regime are present in arid climates and contain limited moisture. As a result, aridic soils contain little water for plants.²⁹⁸

²⁹¹ https://www.refworld.org/pdfid/4d4a68190.pdf

²⁹² https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

²⁹³ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

²⁹⁴ https://pubs.er.usgs.gov/publication/pp560B

²⁹⁵ https://edepot.wur.nl/493427

²⁹⁶ https://en.climate-data.org/asia/yemen/amran-governorate-2026/r/july-7/

²⁹⁷ https://www.worldwildlife.org/ecoregions/at1321

²⁹⁸ https://link.springer.com/referenceworkentry/10.1007%2F978-1-4020-3995-9_364

Aridic soils experience less weathering and leaching than soils in more humid climates and, as a result, have a coarse texture, form slowly, retain soluble substances well and are commonly shallow. These soils have low rates of erosion.^{299,300}

- 229. Land Use: Agriculture is the main economic activity in Amran, with cereals and vegetables – such as wheat, lentils, barley and sorghum – the most important crops. Livestock breeding also contributes significantly to local livelihoods.³⁰¹ Due to topographic features, much of Amran's cultivation and livestock rearing takes place on terraced slopes or in plains and plateaus. Terraced cultivation is an ancient form of production and serves to preserve rainfall and soil on steep slopes where rain is infrequent. Terraced farming is the most common form of subsistence farming in the country. Crops grown on terraces are often rainfed while plains and plateau production are irrigated by both rainwater and groundwater.³⁰²
- 230. **Water Resources:** The water supply network was cut-off in Amran City at the start of the war. Since, international organizations have helped resume water services, yet there are still rural areas that have not been reached. In 2017, 40 percent of Amran's population had access to potable water.³⁰³ Water in Amran commonly comes from untreated reservoirs, water deliveries via truck or through water facilities. For those without access to water facilities and infrastructure, accessing water can be challenging, expensive and often involves long commutes by foot to access a minimal amount of water. However, an increasing number of development projects in the region stand to significantly improve water resources in parts of Amran.³⁰⁴
- 231. **Irrigation System:** In Amran and other Highland areas, irrigation mainly takes the form of collected rainwater. Bunds and ridges in fields and terraces act as cisterns for water collection as they reduce runoff and preserve the limited amount of precipitation in the irrigation system.³⁰⁵
- 232. **Agroecological Zones & Eco-Regions:** Amran's eco-region is characterized as Afrotropical realm and spans the Arabian Highlands above 2000 meters, including most of the Western Highlands in Yemen. To the west of this region lies the Tihamah plain while the Empty Quarter lies to the east. Agriculture has been practiced in this eco-region for thousands of years and landraces of crops such as wheat, sorghum and barley are still being produced in this area.³⁰⁶

²⁹⁹ https://edepot.wur.nl/493427

³⁰⁰ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

³⁰¹ https://yemenlg.org/governorates/amran/

³⁰² http://www.fao.org/3/ak342e/ak342e00.htm

³⁰³ https://yemenlg.org/governorates/amran/

³⁰⁴ https://reliefweb.int/report/yemen/usg-provides-support-amran

³⁰⁵<u>https://documents1.worldbank.org/curated/en/901231468347330974/pdf/549230ESW0P1020l0land0ten</u> <u>ure109June.pdf</u>

³⁰⁶ https://www.worldwildlife.org/ecoregions/at1321

Zone 12: Western Central Highland Coffee, Qat, Sorghum and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Wheat/barley (season 1)												
Wheat/barley (season 2)									1			
Sorghum		•			-						·	
Coffee												
Legumes (season 1)			i								1	
Legumes (season 2)											Í I	
Livestock												
Milk production											i	
Livestock conceptions		÷	:	•								
Livestock sales				1								
Other												
Local agricultural labor		i i		1	1							
Off-farm labor						-	·	•	-			
Food purchases												
Rainy Seasons			<u> </u>									

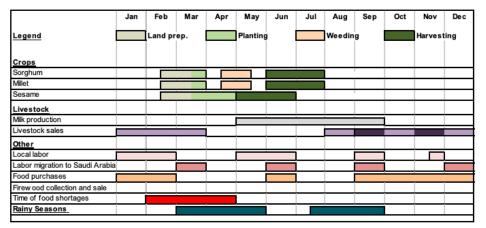
Zone 9: Sa'adah Irrigated Wheat, Fruit, Vegetables, Qat and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	9		Harvest	ing
Crops												
Wheat (season 1)				_								
Wheat (season 2)							_					
Sorghum and barley												
Pomegranate			•				•	·	•			
Apples								1				
Grapes			:				·	i				
Tomatoes							-	1				
Potatoes								Í				
Other												
Seasonal labor							-	-			1	
Trade (petty/crossborder)		÷										
Remittances										Î		
Food purchases		1			<u> </u>					ì	1	
Period of food shortages							ľ					
Rainy Seasons		-										

Zone 5: Central Highland Potato, Vegetable and Livestock Zone

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Potatoes					Í							
Vegetables												
Wheat and barley (season 1)												
Wheat and barley (season 2)				1								
Beans (season 1)					<u> </u>							
Beans (season 2)					i III							
Livestock												
Milk production								-			1	
Livestock sales			1									
Other												
Local labor			1					1				
Remittances												
Food purchases			1									
Period of food shortages												
Rainy Seasons												

Zone 1: Amran Rainfed Sorghum, Barley, Qat and Livestock



233. **Biodiversity & Forests:** In Amran and the surrounding areas, terraced agriculture, which has been practiced for thousands of years in this region, has eliminated much of the forest cover and natural vegetation in mountainous areas. What vegetation has survived is characterized based on altitude. Evergreen forest is found at 2 000 m while Afroalpine vegetation and dwarf forest is present between 2 500 and 3 207 m. North-facing slopes are sheltered and grow a wide variety of plants while southfacing slopes are more barren. This eco-region supports over 2 000 vascular plants while most southwest Arabian endemic bird species live in Afrotropical habitat. Mammals such as panthers, Hamadryas baboons, caracals, rock hyrax, striped hyena and Arabian wolf are found in Afrotropical highlands.³⁰⁷

234. **Protected Areas:** There are no protected areas in this governorate.

235. Demographics: The governorate of Amran is 7 911 km² and consists of 20 districts. Amran City is the capital.³⁰⁸ Total population was 1 205 960 people as of 2019³⁰⁹ (1 052 000 people as of 2017 with 520 000 female and 530 000 male residents).³¹⁰ Average family size is 6 individuals.³¹¹ As of 2019, 252 246 individual IDPs and 42 041 IDP households were located in Amran. Amran City has one of the highest populations of IDPs in the country consisting of 53 226 individuals and 8 871 households. Almost 100 percent of displacement in Amran governorate occurred due to conflict, as opposed to natural disaster. As of 2019, there were 40 068 individual returnees and 6 678 returnee households in Amran.³¹² About 23 percent of Amran's population are IDPs.³¹³

³⁰⁷ https://www.worldwildlife.org/ecoregions/at1321

³⁰⁸ BerghofMappingLocalGovernanceYemeniGovernorates_EN.pdf

³⁰⁹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

³¹⁰ https://yemenlg.org/governorates/amran/

³¹¹https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_ -_apr_2016.pdf

³¹²https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

³¹³https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

- 236. **Education:** Since the conflict began, at least 400 000 school aged children have been displaced and, as of late 2017, over a million school aged children have left school. Schools, teachers and students have all been targeted for attacks. Students are also often targeted for recruitment on their way to and from school.³¹⁴ Schools are often used as barracks or for weapons storage.³¹⁵ At least 32 schools in Amran have been destroyed or damaged due to conflict. Teachers are not receiving their salaries. Education increasingly relies on international organizations and donors, for example UNICEF has provided classroom tents to be used for education.³¹⁶ Besides children directly in conflict zones, Muhamasheen and disabled children face large barriers to education.³¹⁷
- 237. **Health:** Public hospitals provide services to local populations, yet services are limited and what is provided is significantly funded by international donors. In general, health services are insufficient to meet the needs of Amran residents as well as increasing numbers of IDPs.³¹⁸ In early 2019, Amran reported 200 cases of diphtheria with a few associated deaths.³¹⁹ Cholera is also a concern in Amran with 187 069 cases and 260 related deaths reported between 2017 and 2019.³²⁰ From December 2020 to March 2021, Amran reported 16 percent of Yemen's Measles cases and 9 percent of the country's severe acute respiratory infections (SARI) cases.³²¹ As of 24 May 2021, Amran had not been affected by the COVID-19 pandemic.³²²
- 238. **Poverty Profile:** Unemployment in Amran is high, in fact the third highest level of poverty in Yemen, after Al Hudeydah and Hajjah.³²³ As of 2017, 75.9 percent of Amran's population, or 768 438 individuals, were in poverty.³²⁴ Today, this number is expected to have tripled due to increasing and prolonged conflict and economic collapse.^{325,326} As of 2017, PiN in Amran include 14 697 IDPs in catastrophic need, 84 352 in extreme need, 90 172 in severe need, 45 440 stressed and 19 570 in minimal need. Regarding non-IDPs in Amran, 51 141 are in catastrophic need, 269 943 are in extreme

³¹⁴ https://www.refworld.org/docid/5be942f926.html

³¹⁵https://reliefweb.int/sites/reliefweb.int/files/resources/briefing_note_humanitarian_impact_of_conflict_in _amran_15_jul_2014.pdf

³¹⁶ https://yemenlg.org/governorates/amran/

³¹⁷https://www.unicef.org/mena/media/6691/file/Yemen%20Country%20Report%20on%20OOSC_EN.pdf%20 .pdf

³¹⁸ https://yemenlg.org/governorates/amran/

 ³¹⁹ https://www.who.int/health-cluster/countries/yemen/Yemen-Health-Cluster-Bulletin-Feb-2019.pdf?ua=1
 ³²⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf

³²¹https://reliefweb.int/sites/reliefweb.int/files/resources/WHO%20March%202021%20Situation%20Report_ English.pdf

³²²https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

³²³ https://yemenlg.org/governorates/amran/

³²⁴ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

³²⁵ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

³²⁶ https://resourcecentre.savethechildren.net/node/13437/pdf/yem-cx-17-_yemen_ex_sitrp_april_2018.pdf

need, 370 344 are in severe need, 190 750 are stressed and 85 299 are in minimal need. $^{\rm 327}$

- 239. Food Security: Amran had "very high" (≥40 percent) prevalence of inadequate food consumption during March 2021 (59%).³²⁸ Food was the main need for the greatest proportion of households in Amran, as opposed to shelter/housing and financial services.³²⁹ Food insecurity is more severe in areas with active fighting or bordering areas with limited access and is particularly affecting IDPs and marginalized groups. The caseload in Catastrophe (IPC Phase 5) is mainly found in Amran (as well as Al Jawf and Hajjah). In Amran, highly vulnerable marginalized groups such as landless wage labourers and lack of access to public services such as water, sanitation and health are the primary causes.³³⁰ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, on a population of 1 205 960 people, 177 500 are in IPC Phase 1 (Minimal), 327 500 in IPC Phase 2 (Stressed), 500 500 in IPC Phase 3 (Crisis), 197 000 in Phase 4 (Emergency) and 3 500 in Phase 5 (Catastrophe). 58 percent of the population (701 000 people) are in IPC Phase 3 or higher.³³¹
- 240. **Labour and Instances of Child and Youth Labour:** In 2014, the labour force participation rate of Amran was 39 percent while unemployment was 13.7 percent.³³² Amran's working age population (15 years of age or older) consisted of 2.6 percent of Yemen's total working age population including 2.7 percent of male workers, 2.5 percent of female workers, 2.2 percent of urban workers and 2.7 percent of rural workers.³³³ 36 000 individuals were employed in agriculture, 13 000 in industry and 68 000 in services in 2014. Average monthly income for employees was 55 778 Rials and 185 094 Rials for employers.³³⁴ Child labour occurs in Amran, specifically related to qat farming and stone-cutting work.³³⁵
- 241. **Social Protection:** Approximately 80 000 beneficiary households receive assistance from the WB/UNICEF ECT program for SWF and WFP in-kind assistance in Amran.³³⁶

³²⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

³²⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

³²⁹https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

³³⁰http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Yemen_Acute_Food_Insecurity_2020Oct2 021June_Snapshot.pdf

³³¹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

³³² https://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-

beirut/documents/publication/wcms_419016.pdf

³³³ https://www.ilo.org/wcmsp5/groups/public/---arabstates/---robeirut/documents/publication/wcms_419016.pdf

³³⁴ https://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-

beirut/documents/publication/wcms_419016.pdf

³³⁵ https://www.refworld.org/pdfid/4d4a68190.pdf

³³⁶ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

DHAMAR:

- 242. **Topography & Geology:** Dhamar governorate is located in the west of Yemen – south and southeast of Sana'a governorate, north of Ibb governorate, east of Al Hudaydah governorate and northwest of Al Bayda. Dhamar lies in the southern end of the Sarawat Mountain Range and includes topographical features such as mountains, plains and plateaus. The bedrock of much of Dhamar is volcanic rock and is categorized in two groups: volcanic rock formed during the Tertiary Period (65 million to 2 million years ago) known as the Yemen Volcanics while younger volcanic rock is known as Quaternary Volcanics. The Yemen Volcanics are comprised of tertiary volcanic rocks (known as the Trap Series) which are made of lava flows, basalts, porphyries and tuff. The Yemen Volcanics also include granite laccoliths, or an igneous intrusion that has split apart another rock formation. The Quaternary Volcanics are granites younger than the Yemen Volcanics. They are basaltic, often encased in tuff and contain tourmaline and amphibole crystals.³³⁷
- 243. **Climate & Meteorology:** Dhamar's climate is temperate and cold-semiarid with average temperatures ranging from 10° C to 19° C in summer and 8° C to -1° C in winter. In winter, the central and eastern parts of the governorate are colder while the valleys and western slopes are warmer. Rainfall averages range from 3 mm in December to 243 mm in August with total average rainfall of 599 mm. Rainfall spans an average of 56 days annually with 16 rainy days in August and 1 rainy day each in October, November and December. Humidity ranges from 28 percent in June to 55 percent in August.³³⁸ Increased rainfall in late summer is a result of the southwestern monsoon.³³⁹
- 244. **Soil Quality:** Dhamar's soils are isomesic and ustic.³⁴⁰ Isomesic soils have a mean annual temperature of 8° C or more and a difference between mean summer and winter temperatures of less than 5° C.³⁴¹ Ustic soils are found in semiarid climates and have limited water content, yet moisture is present especially during peak plant growth.³⁴²
- 245. Land Use: Land in Dhamar is utilized to grow food crops such as potatoes, wheat, beans and vegetables. Potatoes, wheat and barley are grown as both food and cash crops. Nearly 80 percent of all agriculture is irrigated in Dhamar. Sheep, goats and cattle are the main livestock reared in the governorate and are consumed and sold as a supplement to crop production. Almost all households have some form of production and rely on foods they produce. Poor households are often unable to generate income from their crops as they often do not have surplus so must find other ways of making

³³⁷ https://edepot.wur.nl/493427

³³⁸ https://en.climate-data.org/%D8%A7%D8%B3%DB%8C%D8%A7/%DB%8C%D9%85%D9%86/dhamargovernorate-2021/r/july-7/

³³⁹ https://www.worldwildlife.org/ecoregions/at1321

³⁴⁰ https://edepot.wur.nl/493427

³⁴¹ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

³⁴²http://www.soilinfo.psu.edu/index.cgi?soil_clim&information&general&taxonomy_defs&soil_moist_regim es&classes&ustic

money, such as working as labourers. Wealthier households can generate enough income to meet their needs by selling surplus crops.³⁴³

- 246. **Water Resources:** In Dhamar, groundwater and surface water are the primary sources of water resources for agriculture, industrial and domestic needs.³⁴⁴ Groundwater extraction is common in Dhamar due to limited rainfall and access to other freshwater sources. However, as a result of excessive extraction, the water table has been dropping at a rate of 2 to 2.5 m a year over the past 40 years. The water table is estimated to be depleted in the next 30 years if the current rate of extraction continues.³⁴⁵ Another major concern from groundwater extraction is leakage from latrines into groundwater reserves and aquifers which can cause serious health challenges for communities.³⁴⁶
- 247. **Irrigation System:** Dhamar's irrigation systems rely heavily on use of surface water and groundwater extraction. 95 percent of irrigation in Dhamar plain and 73 percent of irrigation in all areas of Dhamar governorate comes from groundwater extraction.^{347,348}
- 248. **Agroecological Zones & Eco-Regions:** Dhamar falls within the Afrotropical eco-region realm as well as the Southwestern Arabian foothills savanna eco-region biome. The Afrotropical eco-region covers much of Africa and areas of western Arabia surrounding the Red Sea.^{349,350} The Southwestern Arabian foothills savanna eco-region covers mountainous regions of Saudi Arabia, Oman and the Sarawat Mountain Region of Yemen.³⁵¹ South-facing slopes are characterized by frequent fog arising from moisture-bearing winds from the Arabian Sea, which serve to provide moisture in an otherwise dry environment and lowers overall air temperature.³⁵² Evidence of agriculture in this biome dates to over 5 000 years ago and is characterized by terraces in mountainous regions and irrigated agriculture in plains and plateaus. Frankincense and Myrrh, aromatic resins, can also be found in this biome as well as many wild foods.^{353,354}

³⁴³ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

³⁴⁴ https://www.oecd.org/countries/yemen/42400796.pdf

³⁴⁵https://www.researchgate.net/publication/326734857_Assessment_of_water_resources_in_Dhamar_Gov ernorate_Yemen_Republic

³⁴⁶ https://www.oecd.org/countries/yemen/42400796.pdf

³⁴⁷https://www.researchgate.net/publication/326734857_Assessment_of_water_resources_in_Dhamar_Gov ernorate_Yemen_Republic

³⁴⁸ https://www.oecd.org/countries/yemen/42400796.pdf

³⁴⁹ https://www.worldwildlife.org/ecoregions/at1321

³⁵⁰ https://ecoregions.appspot.com/

³⁵¹ https://dopa-explorer.jrc.ec.europa.eu/ecoregion/31320

³⁵² https://www.oneearth.org/ecoregions/southwest-arabian-escarpment-shrublands-and-woodlands/

³⁵³ Wilkinson, Tony (1999). "Settlement, Soil Erosion and Terraced Agriculture in Highland Yemen: a

Preliminary Statement." Proceedings of the Seminar for Arabian Studies, vol. 29, 1999, pp. 183–191. ³⁵⁴ http://www.fao.org/3/i1500e/yemen.pdf

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	I		Weedin	g		Harvest	ing
Crops												
Wheat							_		:	÷		
Sorghum												
Qat				i				÷				
Fodder					i i		í		i i		i	
Grapes												
Livestock												
Milk production							1					
Livestock sales		:								î		
Other												
Local labor				-			-	i				
Labor migration					í í		i			·	i	
Food purchases							i					
Rainy Seasons					_			1				

Zone 13: Western and Central Highland Wheat, Sorghum, Qat and Livestock



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	9		Harvest	ing
Crops												
Wheat/barley (season 1)												
Wheat/barley (season 2)									ľ			
Sorghum		·										
Coffee												
Legumes (season 1)			1									
Legumes (season 2)												
Livestock												
Milk production								1		-	1	
Livestock conceptions		·		·								
Livestock sales				1								
Other												
Local agricultural labor		i i			1						-	
Off-farm labor							*		:	1		
Food purchases											1	
Rainy Seasons												

Zone 5: Central Highland Potato, Vegetable and Livestock Zone

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Potatoes												
Vegetables												
Wheat and barley (season 1)												
Wheat and barley (season 2)			1									
Beans (season 1)					_		<u> </u>					
Beans (season 2)												
Livestock												
Milk production											1	
Livestock sales				1								
Other												
Local labor				1					1			
Remittances									1	1	1	
Food purchases				1								
Period of food shortages									r			
Rainy Seasons											÷	

- 249. **Biodiversity & Forests:** Forests and vegetation in Dhamar vary according to topography and elevation. Most frequent land cover is drought-resistance deciduous woodland, evergreen woodlands, shrublands and dry grasslands.³⁵⁵ Xeric shrubland is the most common groundcover and includes vegetation such as aromatic herbs, shrubs, acacia, grasses and dwarf trees. It is common for plants growing in shrublands to have developed fire resistance due to the dry nature of the environment and high potential of fire occurrence when lightning strikes.³⁵⁶ Dhamar's fauna include panthers, caracal, baboons, rock hyrax and hyenas.³⁵⁷
- 250. **Protected Areas:** Dhamar governorate is home to the Dhamar Montane Plains Mahjur Traditional Reserve. This protected area is a traditional rangeland reserve that is often used as a forage area by local communities during the dry season to feed sheep herds. Traditional use of rangelands governs this reserve.^{358,359}
- 251. **Demographics:** The governorate of Dhamar is 7 587 km² and consists of 12 districts. Dhamar City is the capital. Total population is 2 176 000 people as of 2019³⁶⁰ (it was 1 913 000 people as of 2017 with 916 000 female and 952 000 male residents).³⁶¹ Average family size is 6 individuals.³⁶² As of 2019, 186 774 individual IDPs and 31 129 IDP households were located in Dhamar. Almost 100 percent of displacement in Dhamar governorate occurred due to conflict, as opposed to natural disaster. As of 2019, there were 9 660 individual returnees and 1 610 returnee households in Dhamar.³⁶³
- 252. **Education:** Dhamar City in Dhamar (4 percent) is the district that presents the lowest school attendance rate in Yemen is after Maswarah in al Bayda (0 percent) and Ad Durayhimi in al Hudaydah (0 percent).³⁶⁴ An estimated 2 000 schools that have been partially or completely destroyed due to conflict, are being used to host IDPs, or are occupied by armed groups. This includes 256 schools that have been destroyed by air strikes or shelling; 1 520 schools that have been damaged by the conflict; 167 schools that are sheltering IDPs; and 23 schools that are occupied by armed groups.³⁶⁵

³⁵⁵ Kürschner H. (1998) Biogeography and Introduction to Vegetation. In: Ghazanfar S.A., Fisher M. (eds) Vegetation of the Arabian Peninsula. Geobotany, vol 25. Springer, Dordrecht. <u>doi:10.1007/978-94-017-3637-</u>

<u>4 4</u>

 $^{^{\}rm 356} {\rm https://earthobservatory.nasa.gov/biome/bioshrubland.php}$

³⁵⁷ https://www.worldwildlife.org/ecoregions/at1321

³⁵⁸ https://www.sciencedirect.com/science/article/abs/pii/S014019630580117X

³⁵⁹ https://www.protectedplanet.net/30886

³⁶⁰http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

³⁶¹ https://yemenlg.org/governorates/dhamar/

³⁶²https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

³⁶³https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

³⁶⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

³⁶⁵ Ibid.

192 schools have been damaged or destroyed in Dhamar since the start of the war.^{366,367} Teachers have not been paid in this governorate since the conflict began, which poses one of the largest barriers to education for school aged children.^{368,369}

- 253. As many primary water sources have stopped functioning (which means longer distances to travel and additional threats to safety and dignity, including GBV) children may remain out of school so they can fetch water, which families may prioritize over education.³⁷⁰ Even when at school, it is difficult for children to learn as they struggle to deal with the psychological impact of living through war and the effects of hunger and malnourishment. Families cope with anxiety and stress, increasing the need for mental health and psychosocial services. The overall provision of protection services has come under strain. About 35 percent of child protection incidents addressed by social workers through the case management system in 2018 were related to mental health and psychosocial support.³⁷¹
- 254. Grave violations against children remain high, following a 51 percent increase in verified cases of killing and maiming of children compared to the previous year. Children continue to face grave violations and the effects of armed conflict, particularly in or near conflict-affected areas. Children who have experienced or are at risk of such violations need assistance and support, including mine risk education, family tracing, reunification, interim care services and psychosocial support. Child-headed households are among the most vulnerable. Mine-risk education remains critical as reports of child victims of mines and unexploded ordnances increased from 119 to 227 in the last year. Support for unaccompanied and separated children and children heading households remains critical. An estimated 19 000 separated children, seven percent of whom are in displaced communities, need assistance.³⁷²
- 255. Marginalised children, such as Muhamasheen and children with disabilities, are more likely to be ignored when it comes to education. The quarantine measures as a result of COVID-19 may increase the risk of gender-based violence for people living in close quarters with higher risks of discrimination and physical and financial barriers to access essential services. Persons with disabilities also face risks of stigmatization and loss of access to specialized assistance services and treatment. Children are deprived not only of education but also associated services such as school feeding and social assistance, while being at increased risk of domestic violence.³⁷³ 8 percent of youth aged 15-24 group are not in education, work or training.³⁷⁴

³⁶⁶ https://yemenlg.org/governorates/dhamar/

³⁶⁷ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

³⁶⁸ https://yemenlg.org/governorates/dhamar/

³⁶⁹ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

³⁷⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

³⁷¹ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

³⁷² Ibid.

³⁷³ Ibid.

³⁷⁴ Ibid.

- 256. Health: Public hospitals and health centers serve the population of Dhamar, yet they only provide basic services and must rely on international donors to function.³⁷⁵ In early 2021, Dhamar accounted for 11 percent of Yemen's diphtheria cases.^{376,377} Dhamar also had one of the highest rates of cholera in Yemen with 195 421 cases and 287 deaths in 2019 (CFR 0.15 percent)³⁷⁸ from 27 April 2017 to 31 August 2019.³⁷⁹ From 28 December 2020 to 28 March 2021, a total of 1 263 suspected SARI cases were reported from northern governorates, along with 46 associated deaths. Within the last 4 epidemiological weeks, suspected cases were reported nationally, with 20 percent of these being reported from Dhamar's governorate.³⁸⁰ As of 24 May 2021, Dhamar had not been affected by the COVID-19 pandemic.³⁸¹
- 257. Poverty Profile: According to the local authorities, 2014 budget, grants and central subsidies constituted 96 percent of the total revenue for the governorate, while local revenues covered 4 percent. Revenues were adversely affected by the war. The establishment of the General Zakat Authority and the transfer of zakat to a central revenue has caused the governorate to lose an important source of income. For some time, Dhamar was able to make up for the shortfall by taxing trade between the areas under control of the internationally recognized government and the de facto authorities in Sana'a. However, growing insecurity on the road through Dhamar has displaced trade eastwards since late 2018. Nearly 400 000 people in need of assistance in Dhamar, or just over 20 percent of the population, 48 percent of which are in dire need.³⁸² According to the 2014 Household Budget Survey, the poverty rate in Dhamar was 31.1 percent.³⁸³ As of 2017, 31 percent of Dhamar's population, or 547 049 individuals, were in poverty.³⁸⁴ With the decline of economic conditions in Yemen, this number has likely increased.³⁸⁵ As of 2017, PiN in Dhamar include 3 622 IDPs in catastrophic need, 62 973 in extreme need, 62 006 in severe need, 36 873 stressed and 22 728 in minimal need. Regarding non-IDPs in Dhamar, 57 787 are in catastrophic need, 545,903 are in extreme need, 700 956 are in severe need, 415 120 are stressed and 286 227 are in minimal need.³⁸⁶

³⁷⁵ https://yemenlg.org/governorates/dhamar/

 ³⁷⁶ https://www.who.int/health-cluster/countries/yemen/Yemen-Health-Cluster-Bulletin-Feb-2019.pdf?ua=1
 ³⁷⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/WHO%20March%202021%20Situation%20Report_
 English.pdf

³⁷⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf

 ³⁷⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
 ³⁸⁰ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1

³⁸¹https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

 ³⁸² OCHA, Humanitarian Response Plan for Yemen 2018, cited in https://yemenlg.org/governorates/dhamar/
 ³⁸³ https://yemenlg.org/governorates/dhamar/

³⁸⁴ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

³⁸⁵ https://yemenlg.org/governorates/dhamar/

³⁸⁶ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

- 258. Food Security: Food was the main need for most households in Dhamar, as opposed to shelter/housing and financial services.³⁸⁷ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, on a population of 2 176 000 people, 405 000 are in IPC Phase 1 (Minimal), 696 000 in IPC Phase 2 (Stressed), 769 500 in IPC Phase 3 (Crisis), 307 000 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 49 percent of the population (1 076 500 people) are in IPC Phase 3 or higher.³⁸⁸
- 259. Labour, including instances of Child and Youth Labour: Agriculture is Dhamar's main economic activity and the 5th largest agricultural producer in Yemen, accounting for 5.3 percent of national production. Most important crops are vegetables, cereals and fodder for livestock. Dhamar is also one of the main sources of construction stones and mineral in Yemen, making it a major mining center.³⁸⁹ Child labour and exploitation occurs in Dhamar – particularly related to agricultural work, mining and stone-cutting. Agricultural work is the economic sector with the highest occurrence of child labour and is often dangerous as children are forced to carry heavy loads and are exposed to pesticides and potentially dangerous agricultural equipment. Children working in mines and quarries are often at high risk of being exploited by gangs.³⁹⁰
- 260. **Social Protection:** The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen the community resilience in 13 of Yemen's most vulnerable governorates, including Dhamar.³⁹¹

HAJJAH:

261. **Topography & Geology:** Hajjah governorate is located on Yemen's west coast in the Tihama Plain. Saudi Arabia is directly to the north while Amran governorate is to the east, Al Hudaydah governorate is to the south and the Red Sea is to the west. Hajjah contains 31 districts with the capital city of Hajjah City. The western side of Hajjah lies within the Tihama Plain while the eastern side of the governorate is located in the Sarawat Mountain Range. The geology of the Tihama Plain is characterized by alluvial deposits and dunes. Alluvial deposits are sediments deposited by water flows – in the case of the Tihama, alluvial deposits occur as a result of water flowing from the slopes of the Sarawat Mountain Range and from wadis and runoff from the highlands. Dunes are landforms created by windblown or water deposited sand and/or soils.³⁹²

³⁸⁷https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

³⁸⁸http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

³⁸⁹ https://yemenlg.org/governorates/dhamar/

³⁹⁰ https://www.refworld.org/pdfid/4d4a68190.pdf

³⁹¹ https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-

^{%20}Eng..pdf

³⁹² https://edepot.wur.nl/493427

- 262. **Climate & Meteorology:** Hajjah contains three different climatic zones including hot desert climate, cold desert climate and cold semi-arid climate. Average temperatures range from 23.3° C in January to 31.8° C in June. Average annual rainfall is 391 mm with the lowest amount of rainfall occurring in June with 9 mm and the highest amount of rainfall occurring in August with 63 mm. Humidity ranges from 49 percent in June to 71 percent in December. Average annual rainy days are 59 days, with the most days in September and October (eight days each) and the least number of days in June (one day).³⁹³
- 263. **Soil Quality:** Hajjah's soils are isohyperthermic and aridic. Isohyperthermic soils are the hottest soils on Earth and measure above 22° C while aridic soils are hot and dry. Irrigation is commonly needed to produce crops in these soils.³⁹⁴
- 264. **Land Use:** Agriculture and livestock rearing are the most common uses of land in Hajjah. Qat is widely produced in the governorate and serves as an important source of income. Nearly all households produce grains such as wheat, sorghum and maize. More affluent families with large landholdings can produce large amounts of food which are sold locally and transported to distant markets. Poor families commonly also produce food but often collect and sell firewood to increase income. In many parts of the governorate, livelihoods are dependent on wadis for irrigation. While most households produce some amount of food, families still supplement with purchased market goods.³⁹⁵
- 265. **Water Resources:** Hajjah's main sources of drinking water come from tankers, artesian wells, network water fountains, piped water connected to homes and non-protected handmade wells. The average amount of water available per family per day is higher than most surrounding governorates with 93.8 percent of Hajjah's population (included in WASH Cluster survey) having access to 105 liters a day while 4.9 percent of the population has access to between 81 and 105 liters a day and 1.4 percent of the population have access to between 41 and 80 liters a day. Hajjah's water quality ranges from clean throughout the governorate to pockets of salty and turbid water in the central and south of the governorate and smelly water in the south. For individuals collecting water outside of the home, on average, it takes over 60 minutes to collect water from the source and carry it back.³⁹⁶
- 266. **Irrigation System:** The majority of Hajjah's irrigation water comes from groundwater extraction and spate irrigation through wadis.^{397,398}

³⁹³ https://en.climate-data.org/asia/yemen/hajjah-governorate-2025/r/july-7/

³⁹⁴ https://edepot.wur.nl/493427

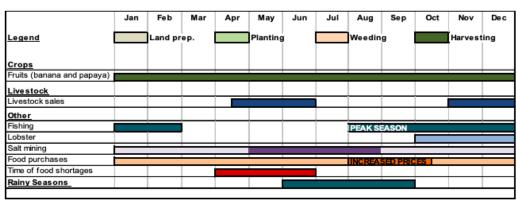
³⁹⁵ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

³⁹⁶https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/WASH% 20cluster_Needs_Assessment_Amran_Hajjah_Hudaydah_Raymah_Oct2012.pdf

³⁹⁷ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

³⁹⁸https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/WASH% 20cluster_Needs_Assessment_Amran_Hajjah_Hudaydah_Raymah_Oct2012.pdf

Agroecological Zones & Eco-Regions: Hajjah is part of the Afrotropical realm 267. and the Arabian Peninsula coastal fog desert eco-region. This region is characterized by its high humidity and aridic climate. It is located along the southern coasts of the Arabian Peninsula, including the Red Sea coast.³⁹⁹ Hajjah falls under 4 livelihood zones, namely Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone; the Western and Central Highland Wheat, Sorghum, Qat and Livestock Zone; the Western Coastal Plain Sorghum Millet and Livestock Zone and the Greater Yemen Coastal and Island Fishing Zone. In the Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone sorghum, millet, maize and vegetables are grown as food and cash crops. In the Western and Central Highland Wheat, Sorghum, Qat and Livestock Zone wheat, sorghum and maize are grown as food crops while wheat, maize, sorghum and qat are grown as cash crops. In the Western Coastal Plain Sorghum Millet and Livestock Zone, sorghum and millet are grown as food and cash crops while cotton is also produced as a cash crop. In the Greater Yemen Coastal and Island Fishing Zone, livelihoods heavily rely on fishing and ocean-based employment opportunities.⁴⁰⁰



Zone 7: Greater Yemen Coastal and Island Fishing

Zone 14: Western Coastal Plain Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Sorghum								ř –				
Millet								r i				
Cotton (some areas)												
Livestock												
Milk production				1				1				
Livestock sales		1		1				1		-	1	1
Other												
Local labor		1		1			-	ľ			-	-
Food purchases								i –				
Time of food shortages												
Rainy Seasons												

³⁹⁹ https://www.worldwildlife.org/ecoregions/at1302

⁴⁰⁰ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ting
Crops												
Sorghum								1				
Millet								i				
Vegetables												
Fruit			1									
Livestock												
Milk production												
Livestock sales							i					
Other												
Local labor					· · · · · ·			1				
Food purchases												
Firew ood collection and sales				1					1			
Time of food shortages												
Rainy Seasons												

Zone 11: Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Legend		Land prep.		Plantin				Weeding			Harvest	Harvesting	
Crops													
Wheat						_	_		:	•			
Sorghum													
Qat				1									
Fodder					í I		í		ľ				
Grapes													
Livestock													
Milk production					-		1				1		
Livestock sales		1	1	1									
Other													
Local labor							-	i i					
Labor migration					i i		i			•	1		
Food purchases					-		i						
Rainy Seasons					-			1					

- 268. **Biodiversity & Forests:** There are over 60 endemic plants in the Arabian Peninsula coastal fog desert eco-region. Mangrove forests are found along the coast while acacia woodlands are prevalent inland, as well as doum palms and tamarisk trees. Arabian sand gazelle, Arabian wolf, honey badger and sand fox are a few of the fauna found here.⁴⁰¹
- 269. **Protected Areas:** There are no protected areas in this governorate.
- 270. Demographics: The governorate of Hajjah is 8 338 km² and consists of 31 districts. Hajjah is the capital. Total population is 2 510 327 people as of 2019⁴⁰² (2 129 000 people as of 2017 with 1 034 000 female and 1 095 000 male residents).⁴⁰³ Average family size is five individuals. During the end of 2018 and early 2019, there was a sharp

⁴⁰¹ https://www.worldwildlife.org/ecoregions/at1302

⁴⁰²http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

⁴⁰³ https://yemenlg.org/governorates/hajjah/

increase in the number of IDPs from 203 000 to 420 000. IDPs are currently based in 300 IDP camps in the various districts of the governorate.⁴⁰⁴ Between June and December 2018, Hajjah governorate experienced high levels of displacement (157 122 individuals) due to conflict along the western coast.⁴⁰⁵ As of 2019, 374 820 individual IDPs and 62 470 IDP households were located in Hajjah. Almost 100 percent of displacement in Hajjah governorate occurred due to conflict, as opposed to natural disaster. As of 2019, there were 61 116 individual returnees and 10 186 returnee households in Hajjah.⁴⁰⁶

- Education: There are 58 schools and 1 436 teachers in Hajjah. Teacher 271. salaries are not being paid in,⁴⁰⁷ which has disrupted education. 161 schools have been damaged by the war.⁴⁰⁸ Ongoing fighting is causing further damage to schools and other basic infrastructure. Damage to school infrastructure is one of the top reasons why children do not go to school in three assessed districts, as students cannot access those schools. An estimated 21 schools have been affected in 3 districts, 7 schools are totally damaged, 3 school roads are being mined, 5 schools are occupied with military forces, 2 schools are partially damaged, and most classrooms affected due to direct attack of airstrikes during the war, 3 schools are near to the frontlines which have caused student to be displaced to other areas. Other schools have been affected due to IDP hosting or non-educational use of schools. Damage to schools leads to damage of school furniture that makes the environment insecure for students to learn. In Hajjah Governorate, 148 classes need restoration, 157 need to add transition classes, 21 walls need to be repaired, 18 schools need to add transition walls, 84 need to build bathrooms and 127 need bathrooms restored. The risk of attacks or recruitment at school, or general violence and protection concerns in the vicinity, are a limiting factor on children and parents feeling safe in attending school and keeps many children, especially girls, at home.409
- 272. **Health:** According to OCHA, 71 percent of households in Hajjah did not have access to potable water in 2016/2017.⁴¹⁰ Water and sanitation services are still functioning in the city of Hajjah, but at a bare minimum and largely as a result of external support.⁴¹¹ Poor water availability and a lack of sanitation services, especially for IDPs, has increased the incidence of cholera and other diseases. International organizations

⁴⁰⁸ OCHA, An Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/hajjah/

⁴¹⁰ OCHA, An Overview of the Humanitarian Needs in Yemen 2018, cited in

⁴⁰⁴ https://yemenlg.org/governorates/hajjah/

⁴⁰⁵https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

⁴⁰⁶https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁴⁰⁷ Economic and Social Development In Yemen Newsletter, Issue No. 30, December 2017, published by the Economic Studies and Forecast Sector in the Ministry of Planning and International Cooperation, cited in https://yemenlg.org/governorates/hajjah/

⁴⁰⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

https://yemenlg.org/governorates/hajjah/

⁴¹¹ Interview with senior executive bureau official in Hajjah. March 2019, cited in https://yemenlg.org/governorates/hajjah/

are working to address these needs.⁴¹² Following the destruction of health infrastructure, such as hospitals, the governorate is suffering from an absence of health services. For a time, only one public hospital remained in service. It provided services to the population with support from international organizations.

- Funding from the local authority is minimal. Support from donor 273. organizations has more recently allowed some local hospitals to reopen. Fighting, an influx of displaced people, and the spread of infectious diseases has increased demands for health services.⁴¹³ 194 119 cases of Cholera and 559 associated deaths (CFR 0.29 percent) were reported in Hajjah during the second wave from 27 April 2017 to 31 August 2019.414 According to UNICEF, between 20 October - 10 November 2019, 26 deaths associated with dengue fever were reported from Hajjah (as well as Al Hudaydah and Taiz governorates).⁴¹⁵ From 28 December 2020 to 28 March 2021, a total of 1 396 suspected cases of Dengue fever were reported along with one associated death in Yemen. Within the last 4 epidemiological weeks, suspected cases were reported nationally, with 5 percent of these being reported from Hajjah's governorate.⁴¹⁶ From 1 January to 25 May 2019, a total of 550 suspected cases of diphtheria were reported along with 32 associate deaths in Yemen. 19 percent of these suspected cases were reported from Hajjah.⁴¹⁷ From 28 December 2020 to 28 March 2021, a total of 261 probable cases of diphtheria were reported from northern governorates, along with 14 associated deaths. 11 percent of these suspected cases were reported from Hajjah.⁴¹⁸ Roughly 58 639 children under one were vaccinated against the major childhood diseases, and 21 523 women aged 14-59 years were vaccinated against Tetanus and Diphtheria through the third round of Integrated Outreach Activities that was conducted in Hajjah, among the other governorates. As of 24 May 2021, Hajjah had not been affected by the COVID-19 pandemic.⁴¹⁹
- 274. **Poverty Profile:** In 2014, 92 percent of Hajjah's budget was financed by grants and central subsidies, while local revenues accounted for 8 percent. The war has reduced the availability of local revenue (local shared revenues, particularly zakat, and taxes) due to its impact on the economy. The establishment of the General Zakat Authority and the transfer of zakat to a central revenue has caused the governorate to lose an important source of income. According to the 2014 Household Budget Survey, the poverty rate in Hajjah reached about 64 percent. As of 2017, 63.9 percent of Hajjah's

⁴¹² https://yemenlg.org/governorates/hajjah/

⁴¹³ Interview with senior executive bureau official in Hajjah. March 2019, cited in https://yemenlg.org/governorates/hajjah/

⁴¹⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
⁴¹⁵ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

⁴¹⁶ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1

⁴¹⁷ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1

⁴¹⁸https://reliefweb.int/sites/reliefweb.int/files/resources/WHO%20March%202021%20Situation%20Report_ English.pdf

⁴¹⁹https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

population, or 1 251 550 individuals, were in poverty.⁴²⁰ More recent statistics suggest that the poverty rate is now 83 percent. The Interim Food Security Classification for 2019 ranks Hajjah as the governorate with the second-highest level of poverty in Yemen, after Al-Hudaydah. Regarding the humanitarian situation and according to OCHA (Humanitarian Response Plan for Yemen 2018), there are nearly 1.9 million people in need of assistance in Hajjah, which constitutes nearly 90 percent of the population. 63 percent of them are in dire need. Based on recent reports, Hajjah has been heavily damaged by fighting and airstrikes. Active fighting occurred in several districts, with Kushar district the most seriously affected.⁴²¹ Shelter/housing was the main need for the greatest proportion of households in Hajjah, as opposed to food and financial services.⁴²² As of 2017, PiN in Hajjah include 42 243 IDPs in catastrophic need, 303 s38 in extreme need, 131 936 in severe need, 60 807 stressed and 25 133 in minimal need. Regarding non-IDPs in Hajjah, 288 985 are in catastrophic need, 788 044 are in extreme need, 553 273 are in severe need, 291 751 are stressed and 145 166 are in minimal need.⁴²³

- 275. Food Security: Food insecurity is more severe in areas with active fighting or bordering areas with limited access and is particularly affecting IDPs and marginalized groups. The caseload in Catastrophe (IPC Phase 5) is mainly found in Hajjah (as well Al Jawf and Amran). In Al Jawf and Hajjah, conflict, displacement and limited humanitarian access are the main drivers.⁴²⁴ Conflict is the principal driver of food insecurity in Yemen leading to widespread displacement, humanitarian access constraints, disruption of public services, ports blockade and restrictions, fuel crisis and economic disruption. Without a permanent solution, it is unlikely that all other mitigation measures will have long-lasting effects. According to the IPC Acute Food Insecurity Analysis October 2020 – June 2021, on a population of 2 510 327 people, 379 500 are in IPC Phase 1 (Minimal), 704 000 in IPC Phase 2 (Stressed), 1 014 000 in IPC Phase 3 (Crisis), 410 500 in Phase 4 (Emergency) and 3 000 in Phase 5 (Catastrophe). 57 percent of the population (1 427 500 people) are in IPC Phase 3 or higher.⁴²⁵ The district of Sha'lan grows gat as households producing gat are twice as likely to be food secure than those not. Economic returns for growing gat are greater than growing coffee for export. Production costs are low due to limited labour and inputs.⁴²⁶
- 276. **Instances of Child and Youth Labour:** Children in northern governorates, including Hajjah, are at particular risk of being trafficked to Saudi Arabia as forced labour, for sexual exploitation and to carry out illegal activities for criminals. Children in Hajjah

⁴²⁰ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

⁴²¹ https://yemenlg.org/governorates/hajjah/

⁴²²https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁴²³ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

⁴²⁴http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Yemen_Acute_Food_Insecurity_2020Oct2 021June_Snapshot.pdf

⁴²⁵http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

⁴²⁶https://documents1.worldbank.org/curated/en/901231468347330974/pdf/549230ESW0P1020l0land0ten ure109June.pdf

could also be subjected to forced labour on fishing vessels which is dangerous as children risk drowning and are often working in unsafe conditions with sometimes dangerous fishing equipment.⁴²⁷

277. Social Protection: The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen the community resilience in 13 of Yemen's most vulnerable governorates, including Hajjah.⁴²⁸ The total number of beneficiary households in Hajjah is more than 550 00, the highest of Yemen. WFP in-kind assistance has the highest number of recipients in the Hajjah's governorate (around 200 000), followed by the WB/UNICEF ECT program for SWF beneficiary households and ICRC PSN (both more than 100 000).⁴²⁹

LAHIJ:

- 278. **Topography & Geology:** Lahij governorate is located on the southern coast of Yemen with Taiz governorate to the northwest, Abyan governorate to the east, Al Dhale'e and Al Bayda governorates to the north and northeast and Gulf of Aden to the south. Lahij consists of 15 districts. The governorate is located in the southern most foothills of the Sarawat Mountain Range and so has a hilly terrane toward the north and flatter plains in the south. Identified rock types comprising Lahij's geology include volcanic rocks such as basalt and olivine basalt, comenditic rhyolite and pitchstone as well as quartzes such as quartz-syenite and quartz-trachyte.⁴³⁰
- 279. **Climate & Meteorology:** Lahij is comprised of 4 different climatic zones including hot desert climate, hot semi-arid climate, cold semi-arid climate and cold desert climate. Average temperatures range from 24.3° C in January to 31.5° C in August. Average annual rainfall is 359 mm with the rainiest month being August, 75 mm, and the driest month being December, 12 mm. Average humidity ranges from 51 percent in April to 64 percent in September. There are 48 average annual rainy days, August and September each have the rainiest days (7 each) while June only has 1 rainy day on average.⁴³¹
- 280. **Soil Quality:** Soils in the south of Lahij are commonly sandy loams and contain gravel in some areas and are well-drained. More broadly, Lahij's soils are considered fertile. In the north, soils are commonly shallow with the deepest soils found on terraced slopes and in valleys.⁴³²

⁴²⁷ https://www.refworld.org/pdfid/4d4a68190.pdf

⁴²⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

⁴²⁹ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

⁴³⁰ https://www.mindat.org/loc-343042.html

⁴³¹ https://en.climate-data.org/asia/yemen/lahij-governorate-2019/r/july-7/

⁴³² http://www.fao.org/3/as059e/as059e.pdf

- 281. **Land Use:** Agriculture and livestock rearing are prevalent in Lahij. Grains are produced for human consumption and as fodder for livestock. Most families produce food in Lahij, however poorer households must also rely on markets to supplement what they grow as they commonly cannot produce all their food. Cotton is sometimes produced as a cash crop.⁴³³ Quarrying and clay mining also take place in Lahij and are important economic activities.⁴³⁴
- 282. **Water Resources:** Wadi Tuban is one of the largest wadis in Yemen and provides water to the Wadi Tuban Delta, located in southern Lahij. The wadi drains a catchment basin of over 3 500 km² and so a large amount of water runs through this area. Water from Wadi Tuban is used both for irrigation and domestic purposes. Lahij's water resources have been affected by the conflict with public water infrastructure and water treatment plants being destroyed or damaged.⁴³⁵
- 283. **Irrigation System:** Irrigation in Lahij commonly takes the form of groundwater extraction, rainfall, spate irrigation, runoff and wadi-irrigation. Irrigation channels in Lahij have been destroyed or damaged by conflict which severely impacts farmers' ability to grow crops.⁴³⁶
- 284. **Agroecological Zones & Eco-Regions:** Lahij is located in the Afrotropical realm and the desert and xeric shrublands eco-region. Xeric shrublands are often ephemeral and habitats are often changing with seasonality and water availability. This region can be highly sensitive to disturbance which can pose a problem in Lahij due to livestock grazing.⁴³⁷ Lahij falls under 3 livelihood zones namely Greater Yemen Coastal and Island Fishing Zone; Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone and Western Coastal Plain Sorghum Millet and Livestock Zone. In the Greater Yemen Coastal and Island Fishing Zone, livelihoods heavily rely on fishing and ocean-based employment opportunities. In the Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock Zone sorghum, millet, maize and vegetables are grown as food and cash crops. In the Western Coastal Plain Sorghum Millet and Livestock Zone, sorghum and millet are grown as food and cash crops while cotton is also produced as a cash crop.⁴³⁸

⁴³³ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

⁴³⁴ https://yemenlg.org/governorates/lahj/

⁴³⁵ https://borgenproject.org/10-facts-about-sanitation-in-yemen/

⁴³⁶ http://www.fao.org/3/as059e/as059e.pdf

⁴³⁷ https://www.worldwildlife.org/biomes/deserts-and-xeric-shrublands

⁴³⁸ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

Zone 7: Greater Yemen Coastal and Island Fishing

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ting
Crops												
Fruits (banana and papaya)												
Livestock												
Livestock sales							í					
Other												
Fishing		:	ĺ					PEAK SE	EASON	:	·	
Lobster												
Salt mining												
Food purchases							-	INCREA	SED PRIC	ES		
Time of food shortages												
Rainy Seasons									1			

Zone 14: Western Coastal Plain Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ting
Crops												
Sorghum								ľ				
Millet								r				
Cotton (some areas)			Í									
Livestock												
Milk production				1				1				
Livestock sales		1										
Other												
Local labor					·			ľ				
Food purchases								i –				
Time of food shortages												
Rainy Seasons												

Zone 11: Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	ı		Weedin	g		Harvest	ing
Crops												
Sorghum								í				
Millet								1				
Vegetables												
Fruit												
Livestock												
Milk production												
Livestock sales							1					
Other												
Local labor		·		·				1			·	
Food purchases		·										
Firew ood collection and sales									1			
Time of food shortages												
Rainy Seasons					_							

285. **Biodiversity & Forests:** Woody-stemmed shrubs, succulents, and seasonal wild herbs are characteristic if the landscape. Commiphora woodlands are also common

in this eco-region. The eco-region's fauna is rich in reptiles and mammals such as honey badger and Arabian wolf.^{439,440}

- 286. **Protected Areas:** There are no protected areas in this governorate.
- 287. **Demographics:** The governorate of Lahij is 13 036 km² and consists of 15 districts. Lahij is the capital. Total population is 1 058 219 people as of 2019⁴⁴¹ (982 998 people as of 2017 with 485 999 female and 497 001 male residents).⁴⁴² Average family size is 6 individuals. An increase in the number of IDPs within the governorate was reported in Lahij.⁴⁴³ As of 2019, 69 492 individual IDPs and 11 582 IDP households were located in Lahij. 100 percent of displacement in Lahij governorate occurred due to conflict, as opposed to natural disaster. As of 2019, there were 79 470 individual returnees and 13 245 returnee households in Lahij.⁴⁴⁴
- 288. **Education:** Lahij governorate's education has been significantly disrupted by the conflict, with 50 schools in Lahij damaged in the war.⁴⁴⁵ Teachers, however, are being paid regularly.⁴⁴⁶ The local authority and international organizations are supporting education in Lahij, ensuring a measure of stability and continuity.⁴⁴⁷
- 289. Lahij is considered a target to house IDPs from different governorates. IDPs camps (Aisha camp in Saber, Al Mashqafa camp in TABN, Rabat camp in Tuban, Al Sharayer camp in Thor Al Albaha) have 1 059 school-age IDP children in need of education support. The conflict has taken a severe toll on children's access to education as children do not feel safe when displaced. 230 school age children in IDP camps in Lahij governorate are without birth certificates. 221 children already dropped out of school because of their displacement. Most IDP children in camps are out of school, depriving them of an education and exposing them to greater risks of recruitment to armed groups and child marriage. Children may remain out of school so they can fetch water, which families may prioritize over education. Even though some IDP children registered in schools close to camps, irregular attendance and not attending exams makes schools not willing to accept newly arriving IDP students. Schools near the IDP sites do not accept

⁴⁴⁵ OCHA, an Overview of the Humanitarian Needs in Yemen 2018, cited in https://yemenlg.org/governorates/lahj/

⁴³⁹ https://www.worldwildlife.org/ecoregions/at1302

⁴⁴⁰ https://www.worldwildlife.org/biomes/deserts-and-xeric-shrublands

⁴⁴¹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

⁴⁴² https://yemenlg.org/governorates/lahj/

⁴⁴³https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_ -_apr_2016.pdf

⁴⁴⁴https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁴⁴⁶ Economic and Social Development In Yemen Newsletter (Issue No. 30, December 2017) published by the Economic Studies and Forecast Sector in the Ministry of Planning and International Cooperation, cited in. https://yemenlg.org/governorates/lahj/

⁴⁴⁷ https://yemenlg.org/governorates/lahj/

new enrolment of IDP students with missing documents including previous education level certificates.

- 290. With regard to infrastructure, public schools near IDP hosting areas have become overcrowded, as there are few schools available to accommodate displaced children in hosting sites. Overcrowded public schools near IDP sites are discouraging school administrations from enrolling more children, and parents from sending their children to school. In addition, overcrowded classrooms reduce the quality of teaching and learning. These public schools have become inadequate learning spaces. Moreover, estimated inadequate availability of latrines and school cleanliness, and a lack of hand washing facilities and clean drinking water have been reported in IDP camps in Lahij. The lack of separate toilets or WASH facilities for girls is also reported to be a major cause of girls dropping out of school.⁴⁴⁸
- 291. **Health:** Hospitals and health centers provide health services in the governorate, but the services are insufficient to meet the needs of the population. The health facilities are working on a low budget provided by the local authority and with support from international donors.⁴⁴⁹ 30 884 Cholera cases and 46 associated deaths (CFR 0.15 percent) were reported in Lahij from 27 April 2017 to 31 August 2019.⁴⁵⁰ From 01 January to 25 May 2019, there were a total of 10 240 suspected cases of Dengue reported along with 36 associated deaths (CFR 0.4 percent) in Yemen. 25 percent of these were reported from Lahij's governorate. The highest proportion of cases are from districts where access is a challenge due to the security situation.⁴⁵¹ As of 31 May 2021, in Lahij, 334 total cases of COVID-19 were reported as well as 79 related deaths and 189 recoveries.⁴⁵²
- 292. **Poverty Profile:** The poverty rate in Lahij was 69 percent in 2014. With the economic disruptions brought on by the war, this rate has likely increased over the past years.⁴⁵³ According to the 2014 local authority budget for Lahij, grants and central subsidies constituted 98 percent of the total revenue for the governorate, while local revenues accounted for only 2 percent. Local revenues (local shared revenues, income from the sale of goods and services, fines and penalties, leasing land, and selling quarries) were negatively affected by the war, and the governorate faced major economic disruption as the site of an active front in the conflict, especially in 2015.⁴⁵⁴ As of 2017, 69.1 percent of Lahij's population, or 634 004 individuals, were in poverty.⁴⁵⁵ There are nearly 900 000 people (more than 90 percent of the population) in need of

⁴⁴⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

⁴⁴⁹ Interview with Deputy Governor of Lahj, cited in https://yemenlg.org/governorates/lahj/

⁴⁵⁰ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf

 ⁴⁵¹ https://applications.emro.who.int/docs/yem/CoPub_Yem_Situation_rep_may_2019_en.pdf?ua=1&ua=1
 ⁴⁵² https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility%
 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

 ⁴⁵³ Republic of Yemen, Household Budget Survey of 2014, cited in https://yemenlg.org/governorates/lahj/
 ⁴⁵⁴ https://yemenlg.org/governorates/lahj/

⁴⁵⁵ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

assistance in Lahij, 62 percent of whom are in dire need.⁴⁵⁶ As of 2017, PiN in Lahij include 20 255 IDPs in catastrophic need, 8 580 in extreme need, 10 436 in severe need, 14 764 stressed and 10 807 in minimal need. Regarding non-IDPs in Lahij, 111 225 are in catastrophic need, 282 253 are in extreme need, 181 088 are in severe need, 244 399 are stressed and 192 489 are in minimal need.⁴⁵⁷

- 293. Food Security: Among the 13 governorates having "very high" (≥40 percent) prevalence of inadequate food consumption during March 2021, the highest was recorded in Lahij (63%).⁴⁵⁸ Food was the main need for the greatest proportion of households in Lahij, as opposed to shelter/housing and financial services.⁴⁵⁹ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, on a population of 1 058 219 people, 348 000 are in IPC Phase 1 (Minimal), 405 500 in IPC Phase 2 (Stressed), 222 500 in IPC Phase 3 (Crisis), 79 500 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 29 percent of the population (302 000 people) are in IPC Phase 3 or higher.⁴⁶⁰
- 294. **Instances of Child and Youth Labour:** Yemeni children can be trafficked domestically for forced labour, domestic service, begging, street vending, sexual exploitation and to work as unskilled laborers particularly to hubs such as Adan and Sana'a but also throughout the rest of the country. Children from Somalia and Ethiopia are trafficked and sold in Yemen as forced commercial sex workers.⁴⁶¹
- 295. **Social Protection:** The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with funding from the European Union (EU) to strengthen the community resilience in 13 of Yemen's most vulnerable governorates, including Lahij.⁴⁶² Another critical social protection/cash assistance intervention was the Rapid Response Mechanism (RRM) project implemented in partnership with Field Operation and Emergency section (the project coordinator) and Action Contre la Faim (ACF - the project implementer). The RRM mechanism integrated a few critical first-response activities, including the unconditional cash disbursed among the internally displaced populations in Abyan, Lahij and Aden governorates. In total, 1 196 IDP households (6 789 individuals), including 3 131 children under five (1 531 girls and 1 600 boys) were reached with a three- month unconditional cash assistance (USD 96 – the amount equal to the value of a food basket) to address the displaced

 ⁴⁵⁶ OCHA, Humanitarian Response Plan for Yemen 2018, cited in https://yemenlg.org/governorates/lahj/
 ⁴⁵⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

⁴⁵⁸ https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000130243.pdf

⁴⁵⁹https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁴⁶⁰http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

⁴⁶¹ https://www.refworld.org/pdfid/4d4a68190.pdf

⁴⁶² ihttps://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

population's food and other basic needs and facilitate their access to social services.⁴⁶³ The total number of Lahij's's beneficiary households in Lahij's is 250 000. Lahij have much higher concentrations of households receiving assistance compared to the population (above 150 percent). The WB/UNICEF ECT program for SWF beneficiary households has the highest number of recipients in the Lahij's governorate (almost 100 000), followed by WFP cash (around 50 000). WFP's cash assistance program is only operational in the Southern governorates, and accounts for a considerable share of total cash assistance beneficiaries in Lahij (as well as Aden, and Shabwah).⁴⁶⁴

TAIZ:

- 296. **Topography & Geology:** Taiz is located on the western coast of Yemen with the Red Sea to the west, Lahij governorate to the south and Ibb and Al Hudaydah to the north and northeast. The governorate is comprised of 23 districts while the capital is Taiz. The governorate is comprised of the southernmost foothills of the Sarawat Mountain range and the lower Tihamah Plain. The geology is comprised of the Taliwah and Medj-Zir sandstones toward the east of the governorate and alluvial deposits along the coast. The Taliwah sandstones date from the Cretaceous period while the Medj-Zir group is from the Tertiary. Both groups are cross-bedded and course-grained quartz sandstones. Sandstones are sedimentary rocks composed of sand-sized grains of mineral, rock and/or organic materials. The Taliwah sandstones also consist of conglomerate layers with red and green shale with the Medj-Zir contains fossiliferous layers of calcareous shales.⁴⁶⁵
- 297. **Climate & Meteorology:** Taiz governorate consists of four climatic zonez namely: (i) hot desert climate; (ii) hot semi-arid climate; (iii) cold semi-arid climate; and (iv) oceanic climate. Average temperature ranges from 19.2° C in January to 25.3° C in in June. Average annual rainfall is 619 mm, with the rainiest month being September (121 mm) and the driest months being February and December (19 mm each). Average humidity ranges from 52 percent in October to 71 percent in August. September has the highest number of rainy days (16) while February has the fewest (three). There are 95 average rainy days a year.⁴⁶⁶
- 298. **Soil Quality:** Taiz's soils are isohyperthermic and aridic.⁴⁶⁷ Isohyperthermic soils are the hottest soils on Earth and measure above 22° C.⁴⁶⁸ Aridic soils are hot and

⁴⁶³ https://socialprotection.org/connect/communities/social-protection-crisis-contexts/documents/europeancommission-span-2019-case-1

⁴⁶⁴ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

⁴⁶⁵ https://edepot.wur.nl/493427

⁴⁶⁶ https://en.climate-data.org/asia/yemen/ta-izz-governorate-2018/r/july-7/

⁴⁶⁷ https://edepot.wur.nl/493427

⁴⁶⁸ https://passel2.unl.edu/view/lesson/69c7561e50b3/11

dry and occur in aridic climates. Irrigation is required in aridic soils in order to produce crops.^{469,470}

- 299. **Land Use:** In the Tihamah Plain region of Taiz, land is used to grow sorghum, millet and cotton and raise livestock. In the highland areas, sorghum, millet and maize is grown. Qat is also produced in the highland areas and is a highly important economic and cash crop. Qat is relatively cheap to produce and can get a high return. Qat is either consumed locally or, in most cases, sold to traders who sell nationally or export to Saudi Arabia. Milk and meat are produced throughout the province and consumed at the household level and sold on the market. Fishing is also an important economic activity. Industries such as cement manufacturing and stone, marble, sand and salt quarries are production are still important livelihoods.⁴⁷¹
- 300. **Water Resources:** There has been a significant lack of clean drinking in Taiz ever since the war began. Much of the Public water and sanitation infrastructure has been damaged or destroyed by conflict. Water-borne infectious diseases are especially prevalent in Taiz and threaten the lives of Taiz's population, especially children. Since 2015 piped water has been cut off in the city of Taiz and residents rely on tanked water for domestic needs. The cost of water has doubled and water disputes have risen by 20 percent in the governorate since conflict began.⁴⁷²
- 301. **Irrigation System:** Pumped groundwater from wells and reservoirs is a large source of irrigation in Taiz. Natural springs, rain, runoff, drip irrigation systems and spate and wadi irrigation are also common.^{473,474}
- 302. **Agroecological Zones & Eco-Regions:** Taiz is located in the Afrotropical realm and the South Arabian fog woodlands, shrublands and dune eco-region. The South Arabian fog woodlands, shrublands and dune eco-region is characterized by frequent fog and/or humidity in the summer months arising from moisture-bearing winds from the Arabian Sea which serve to provide moisture in an otherwise quite dry environment. Taiz falls under four livelihood zones namely the Greater Yemen Coastal and Island Fishing Zone; the Western and Central Highland Qat, Grain, Fodder, Livestock Zone; the Western and Central Highland Qat, Grain. In the Greater Yemen Coastal and Island Fishing Zone; livelihoods heavily rely on fishing and ocean-based employment opportunities. In the Western and Central Highland Qat, Grain, Fodder, Livestock Zone, sorghum, pulses and vegetables are grown as food crops while coffee, qat and sorghum are grown as cash crops. In the Western and Central Wadi Sorghum, Millet, Vegetable, are grown as food crops while coffee, qat and sorghum are grown as cash crops. In the Western and Central Wadi Sorghum, Millet, Vegetable, are grown as food crops while coffee, qat and sorghum are grown as cash crops. In the Western and Central Wadi Sorghum, Millet, Vegetable, are grown as food crops while coffee, qat and sorghum are grown as cash crops. In the Western and Central Wadi Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Millet, Vegetable, Sorghum, Sorghum, Millet, Vegetable, Sorghum, Sorghum, Millet, Vegetable, Sorghum, Sorghum, Millet, Vegetable, Sorghum, So

⁴⁶⁹ https://lawr.ucdavis.edu/classes/ssc120/acrobats/smr.pdf

⁴⁷⁰http://www.soilinfo.psu.edu/index.cgi?soil_clim&information&general&taxonomy_defs&soil_moist_regim es&classes&aridic

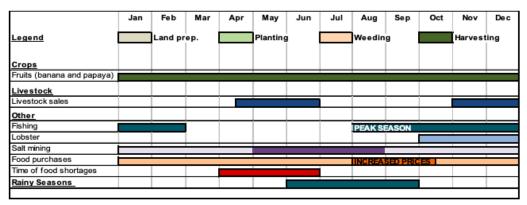
⁴⁷¹ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

⁴⁷² https://yemenlg.org/governorates/taiz/

⁴⁷³ https://www.benaye.org/en/10521/

⁴⁷⁴ https://humanaccess.org/m/news/water-project-taiz-governorate

Fruit and Livestock Zone sorghum, millet, maize and vegetables are grown as food and cash crops. In the Western Coastal Plain Sorghum Millet and Livestock Zone, sorghum and millet are grown as food and cash crops while cotton is also produced as a cash crop.⁴⁷⁵



Zone 7: Greater Yemen Coastal and Island Fishing

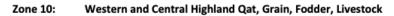
Zone 14: Western Coastal Plain Sorghum, Millet and Livestock

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	1		Weedin	g		Harvest	ting
Crops												
Sorghum								i i				
Millet								r				
Cotton (some areas)												
Livestock												
Milk production												
Livestock sales		1										
Other												
Local labor					·			ľ				
Food purchases					· · · ·			İ				
Time of food shortages												
Rainy Seasons							-					

⁴⁷⁵ https://fews.net/sites/default/files/ye_zonedescriptions_en.pdf

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting	,		Weedin	g		Harvest	ing
Crops												
Sorghum								1				
Millet								i				
Vegetables											-	
Fruit												
Livestock												
Milk production												
Livestock sales							1					-
Other												
Local labor				·				1				
Food purchases												
Firew ood collection and sales				-								_
Time of food shortages												
Rainy Seasons												

Zone 11: Western and Central Wadi Sorghum, Millet, Vegetable, Fruit and Livestock



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Legend		Land pr	ep.		Planting			Weedin	g		Harvest	ing
Crops												
Sorghum and millet												
Maize												
Qat		1						1			1	
Milk production												
Livestock sales		1	1	1								
Other												
Local agricultural labor										1		
Labor Migration												
Food purchases								Î		·	•	
Rainy Seasons				1				1				

- 303. **Biodiversity & Forests:** Acacia forests and deciduous woodlands are common in this eco-region. Grasslands, evergreen thickets and fig trees are also prevalent. Succulent shrubland can be found further inland. Fauna include Arabian oryx, Arabian wolf, Arabian gazelle, honey badger, Ruppell's sand fox and red fox.⁴⁷⁶
- 304. **Protected Areas:** There are no protected areas in the Taiz governorate.
- 305. **Demographics:** The governorate of Taiz is 10 321 km² and consists of 23 districts. The city of Taiz is the capital. The governorate is the most populous in Yemen with a total population of 3 065 034 people as of 2019⁴⁷⁷ (3 182 000 people as of 2017 with 1 700 000 female and 1 482 000 male residents).⁴⁷⁸ Average family size is 6 individuals. An increase in the number of IDPs within the governorate was reported in Taiz. According to the 2016 Task Force Population Movement 8th report, 66 percent of the IDP population (620 934 individuals) had sought refuge in Taiz, which remains the governorate of origin for the highest number of IDPs. Within Taiz, displacement has been

 ⁴⁷⁶ https://www.oneearth.org/ecoregions/south-arabian-fog-woodlands-shrublands-and-dune/
 ⁴⁷⁷ http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Final[3].pdf

⁴⁷⁸ https://yemenlg.org/governorates/taiz/

observed to primarily occur from the districts of Al Mudhaffar (343 571 individuals), Al Qahirah (187 148 individuals) and Salh (154 428 individuals). These populations account for 79 percent of the total population identified to have fled areas within Taiz.⁴⁷⁹ As of 2019, 411 750 individual IDPs and 68 625 IDP households were located in Taiz. Almost 100 percent of displacement in Taiz governorate occurred due to conflict, as opposed to natural disaster. As of 2019, there were 148 326 individual returnees and 24 721 returnee households in Taiz.⁴⁸⁰ In March 2021, 30 317 IDPs were displaced, with most displacement waves coming from Ma'rib, Al Hodeidah, Taiz and Al-Jawf, as internal displacement within governorates towards safer districts increased.⁴⁸¹

- Education: Taiz has seen the highest number of schools damaged by the war, 306. with at least 334 schools damaged.⁴⁸² Teachers were being paid regularly, albeit only in the districts not under the control of the de facto government in Sana'a. Regular salary payments have allowed a measure of continuity and stability in education in some of Taiz's districts, while the disruption has been more severe in others. According to some estimates, 468 out of 1 624 schools in the governorate (28 percent) have had to close, depriving nearly 250 000 students of education. Some schools have reopened in areas where salary payments for teachers have resumed.⁴⁸³ The population of Taiz's Alwazia & Almukha districts are suffering from malnutrition, spread of diseases, and lack of drinking water as its sources are far from the places where people live. In addition to the increased rate of financial insecurity.⁴⁸⁴ An estimated 23 schools are partially damaged due to the conflict, which results in an insecure environment for studying. These schools are unfit for use because of conflict-related damage and destruction by direct attack by airstrikes, ground fighting, and the use of schools for military purposes or housing IDPs. Targeted 23 schools are in instant need of furniture to continue minimum standard education. The number of students affected is 11 274; 6 801 males and 4 473 females. Due to conflict in both districts, at least 693 male and female students multi-displaced to other locations in the area. They are afraid to go to school during the conflict because the school could be attacked, which has resulted in students dropping out. These students need psychological support, protection, and a good educational environment to complete their studies.⁴⁸⁵
- 307. **Health:** In the health sector, the war, the disruption of salaries, and cuts to the operational budget of the governorate have been a source of major challenges to

⁴⁸¹ https://www.unicef.org/media/98951/file/Yemen-Humanitarian-SitRep-March-2021.pdf

⁴⁸² OCHA, An Overview of the Humanitarian Needs in Yemen 2018, cited in

https://yemenlg.org/governorates/taiz/

⁴⁸⁵ Ibid.

⁴⁷⁹https://reliefweb.int/sites/reliefweb.int/files/resources/task_force_on_population_movement_8th_report_
-_apr_2016.pdf

⁴⁸⁰https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁴⁸³ Amal Eldeek and others, Pathways for Peace and Stability in Taiz, Yemen: an analysis of conflict Dynamics and Windows of Opportunity, Search for Common Ground, Yemen, 2018, p. 19-20, cited in https://yemenlg.org/governorates/taiz/

⁴⁸⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

the provision of health services. Many healthcare centers have been closed. There are still several hospitals and health centers in operation, but the services they provide are insufficient and do not meet the needs of the population. Most rely on donor support. Due to the decline in health services and a scarcity of clean drinking water, there have been major epidemics of infectious diseases such as cholera threatening the lives of many in the governorate.⁴⁸⁶ 11 4964 cases of Cholera and 304 deaths (CFR 0.26 percent) were reported in Taiz from 27 April 2017 to 31 August 2019.487 According to UNICEF, between 20 October - 10 November 2019, 26 deaths associated with dengue fever were reported from Al Hudaydah, Taiz, and Hajjah governorates.⁴⁸⁸ Roughly 58 639 children under the age of one were vaccinated against the major childhood diseases, and 21 523 women aged 14-59 years were vaccinated against Tetanus and Diphtheria through the third round of Integrated Outreach Activities that was conducted in Yemen, including Taiz.⁴⁸⁹ As of 31 May 2021, in Taiz, 1 395 total cases of COVID-19 were reported, along with 208 deaths and 636 recoveries.⁴⁹⁰ Taiz is the second most affected governorate after Hadramaut.⁴⁹¹ The Yemeni authorities had implemented additional preventive measures and health screenings for people passing through ten transit points used for public movement between southern and northern governorates, specifically at points located in Taiz (and Al-Bayda). As of 31 May 2021, these restrictions have been loosened and the health screenings have been removed.⁴⁹²

308. **Poverty Profile:** Taiz was the most affected governorate with 67 documented incidents.⁴⁹³ Taiz has been the longest running and potentially the deadliest frontline of the armed conflict since 2015, with a blockade, regular shelling and ongoing fighting taking a dramatic toll on a governorate that has long been Yemen's economic heartland. The economy of Taiz was devastated by the war and the basis for local revenue generation has been eroded significantly.⁴⁹⁴ According the 2014 Household Budget Survey, the poverty rate in Taiz governorate was 41 percent. As of 2017, 41.4 percent of Taiz's population, or 1 236 077 individuals, were in poverty.⁴⁹⁵ After years of ongoing military confrontations, the poverty rate has increased sharply in the governorate.⁴⁹⁶ People's lives remain impacted every day by fighting, and thousands are

⁴⁸⁶ Amal Eldeek and others, Pathways for Peace and Stability in Taiz, Yemen: an analysis of conflict Dynamics and Windows of Opportunity, Search for Common Ground, Yemen, 2018, p. 20-21, cited in https://yemenlg.org/governorates/taiz/

⁴⁸⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/EMROPub_2019_cholera_August_yemen_EN.pdf
⁴⁸⁸ https://www.unicef.org/media/77611/file/Yemen-SitRep-November-2019.pdf

⁴⁸⁹ Ibid.

⁴⁹⁰https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/covi d19_update_info_sharing-27_may_2021.pdf

⁴⁹¹https://reliefweb.int/sites/reliefweb.int/files/resources/20210606_COVID19_DTM%20Yemen%20Mobility% 20Restrictions%20Dashboard%20DRAFT_%2325_V2.pdf

⁴⁹² Ibid.

⁴⁹³ https://reliefweb.int/sites/reliefweb.int/files/resources/education_cluster_-_sdr_report_yemen_2020-08-17-.pdf

⁴⁹⁴ https://yemenlg.org/governorates/taiz/

⁴⁹⁵ https://documents1.worldbank.org/curated/en/147231509378508387/pdf/Yemen-Poverty-Notes-Revised-0612.pdf

⁴⁹⁶ https://yemenlg.org/governorates/taiz/

being displaced from their homes and displacement sites.⁴⁹⁷ According to OCHA's 2018 Humanitarian Response Plan for Yemen, there were nearly 600 000 people in need of assistance in Taiz (approximately 20 percent of the population), 65 percent who were dire need.⁴⁹⁸ As of 2017, PiN in Taiz include 40 571 IDPs in catastrophic need, 95 835 in extreme need, 117 713 in severe need, 100 042 stressed and 43 539 in minimal need. Regarding non-IDPs in Taiz, 273 126 are in catastrophic need, 607 966 are in extreme need, 807 435 are in severe need, 715 092 are stressed and 303 260 are in minimal need.⁴⁹⁹

- 309. Food Security: Food was the main need for the greatest proportion of households in Taiz, as opposed to shelter/housing and financial services.⁵⁰⁰ According to the IPC Acute Food Insecurity Analysis October 2020 June 2021, on a population of 3 065 034 people, 611 500 are in IPC Phase 1 (Minimal), 1 199 000 in IPC Phase 2 (Stressed), 873 000 in IPC Phase 3 (Crisis), 379 000 in Phase 4 (Emergency) and none in Phase 5 (Catastrophe). 41 percent of the population (1 252 000 people) are in IPC Phase 3 or higher.⁵⁰¹ Acute Wasting by Mid-Upper Arm Circumference (MUAC) was detected in 21 percent of the total children aged 6-59 months screened in March 2021, with the highest rates recorded in Al Hudaydah and Taiz.⁵⁰²
- 310. **Instances of Child and Youth Labour:** Across the ten districts covered, children often begin working at the age of 10. Boys are engaging in carrying goods for merchants, begging, stone cutting, transportation and carpentry work. Girls are engaged in domestic labour or as farming assistants. Children can also be recruited as soldiers, and it is believed both government forces and opposition militias use child soldiers. On average, as many as 600 children are killed or wounded annually since the conflict began.⁵⁰³
- 311. **Social Protection:** The United Nations Development Programme (UNDP) Social Protection for Community Resilience Project (SPCRP) is implemented in partnership with the Social Fund for Development (SFD) with the generous funding of the European Union (EU) to strengthen the community resilience in 13 of Yemen's most vulnerable governorates, including Taiz.⁵⁰⁴ UNICEF implemented its humanitarian Cash Transfers programming (CTP) from late 2015 to early 2017, which aimed to improve purchasing power and meet basic needs of the most vulnerable households affected by the conflict. In Phase 1 the programme was implemented in Amanat Al-Asima (city of

 ⁴⁹⁷ https://www.unicef.org/media/98951/file/Yemen-Humanitarian-SitRep-March-2021.pdf
 ⁴⁹⁸ https://yemenlg.org/governorates/taiz/

⁴⁹⁹ https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_HNO_2021_Final.pdf

⁵⁰⁰https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen%20Area%20Assessment%20Round%2037_0 .pdf

⁵⁰¹http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/201224_Yemen%20IPC%20AFI%20Brief_En_Fi nal[3].pdf

⁵⁰²https://reliefweb.int/sites/reliefweb.int/files/resources/WHO%20March%202021%20Situation%20Report_ English.pdf

⁵⁰³ https://www.refworld.org/pdfid/4d4a68190.pdf

⁵⁰⁴ https://reliefweb.int/sites/reliefweb.int/files/resources/SPCRP%20June%202019%20Factsheet-%20Eng..pdf

Sana'a) while in Phase 2 it extended to the Taiz governorate, where armed conflict was still ongoing. Monthly unconditional, unrestricted cash transfers were provided for six months. In Taiz, households with children received YER 21 500 per month and others received YER 10 750 (EUR 44.50) per month. Some 20 150 households were supported in both Sana'a and Taiz. In areas of Taiz where money exchangers did not exist, AMB leveraged other distribution sites, such as local grocery stores.⁵⁰⁵ The total number of beneficiary households in Taiz governorate is around 525 000, the second highest after Hajjah. The WB/UNICEF ECT program for SWF beneficiary households have the highest number of recipients in the Taiz governorate (around 175.000), followed by WFP in-kind assistance (around 125 000).⁵⁰⁶

V. PROJECT-LEVEL ENVIRONMENT AND SOCIAL ASSESSMENT AND PROPOSED MITIGATION MEASURES

5.1 Assessment of Potential Risks and Impacts of the Project

Social Risks & Impacts:

- 312. **Positive Impacts:** The project is expected to bring significant social benefits to the target communities. Specifically, it will create temporary employment opportunities through the CFW Program under Component 1, helping to alleviate food security and improve household income. Under Component 2, it will support the restoration of local food production and increase the sales of crops and livestock. Under Component 3, the project will promote diversified nutrient crops for households to establish gardens and backyards production, and Component 4 would provide capacity-building for food security management. Particular attention and efforts are given to the promotion of youth and women participation and maximizing their benefits through dedicated subcomponents. The proposed interventions are to restore and rehabilitate farms and fields and are planned to take place within existing footprints.
- 313. Adverse Impacts and Risks: The social risk rating for the project is substantial due to risks of occupational health and safety (OHS) (including encountering unexploded ordinances (UXOs)/explosions from remnants of war (ERW)), child and/or bonded labour, community health and safety (including transmission of COVID-19 and other communicable diseases), potential elite capture, and unpredictability of the ongoing security situation. Potential, adverse social impacts related to the CFW activities under Component 1 for rehabilitating farmlands and reconstructing irrigation networks are expected to be small. Large-scale resettlement is not anticipated given that the interventions will take place within existing footprints and focus on small-scale rehabilitation/maintenance. Nonetheless, CFW interventions carry a potential for

⁵⁰⁵ https://socialprotection.org/connect/communities/social-protection-crisis-contexts/documents/europeancommission-span-2019-case-1

⁵⁰⁶ https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/606011617773513363/insights-from-yemen

labour-related impacts and risks (e.g. possible child and/or bonded labour; discriminatory practices in recruitment; occupational health and safety issues), temporary small-scale resettlement, risks to community health and safety, and possible conflicts with local communities over investment benefits. One of the main concerns for OHS pertains to injuries incurred due to lack of worker experience, as the project will engage workers from within the communities. A similar project, the Smallholder Agricultural Productivity Restoration and Enhancement Project (SAPREP), sustained a fatal injury during similar, small-scale reconstruction activities. Whilst this prior history of fatal injury (in this case, death due to the collapse of a portion of the channel's earthen side berm) in the proposed project area would normally lead to a high-risk rating, the corrective measures implemented over 2019 and 2020 with SFD (one of the implementing agencies of SAPREP and an implementation partner for this project as well) resulted in high safeguards comprehension, implementation capacity, and compliance rates across all project areas.⁵⁰⁷ Moreover, since 2018, both SFD and PWP have embarked on a capacity-building program on E&S aspects including OHS. Under these programs, over 4000 individuals including staff, site engineers, consultants, contractors, and site workers have received training on E&S safeguards as relevant to their roles. Based on the results achieved following the corrective measures and capacity building efforts, the risk rating for this type of OHS incident is considered substantial rather than high.

314. More broadly, the project carries a social risk that elites and relatively more fortunate individuals will capture the benefits and undermine project objectives by excluding poor and vulnerable groups like the elderly, poor farmers, women, and individuals displaced by the ongoing conflict. The main challenge is, thus, to ensure that services provided by the project reach the affected population and are distributed in a transparent, equitable manner. There are also security risks in that the adverse social impacts of the project may give rise to a limited degree of social conflict or harm to human security. To mitigate these social risks, FAO, UNDP and WFP have jointly prepared a security management plan (SMP) and are working closely with SFD, PWP and SMEPS to define key selection criteria for target areas. The criteria forms part of the stakeholder engagement process, including the disclosure of public information and outreach related to the project, and is detailed in the complementary Stakeholder Engagement Plan (SEP). The SEP details how appropriate stakeholder engagement is to be conducted throughout implementation to avoid conflicts resulting from unfair distribution of services, the inability of vulnerable groups to access services, and/or issues related to the location of producers in remote rural areas.

Environmental Risks & Impacts:

315. **Positive Impacts:** The project is expected to result in the following positive environmental impacts: (i) recommencement of agricultural production activities; (ii) improved water use and management; (iii) increased familiarity with and

⁵⁰⁷ For more information, please refer to, "Annex V: Third Follow Up Report on SAPREP SCAP Implementation to 30 June 2020".

incorporation of climate smart agricultural practices; (iv) diversification of crops and nutrition-dense foods; (v) economically-environmentally friendly and sustainable use of hydroponics and aquaponics; and (vi) high-productivity piloted interventions which save land and water consumption for irrigation, which may also encourage replication at a larger scale.

- 316. Adverse Impacts & Risks: The environmental risk is considered substantial as the implementation agencies' ESF capacity remains limited (albeit improving through various capacity building efforts of prior projects) and the project will support several interventions which carry risks of: (i) waste generation, noise, dust, and pollution (including those linked to labour/OHS); and (ii) use of pesticides and/or fertilizers. Environmental risks and impacts are expected to be site-specific, reversible, and generally of low magnitude that can be mitigated following appropriate measures. Some risks are specific to the construction activities/implementation phase, while others pertain to the use of equipment during operations phase.
- 317. Minor, localized, and mitigatable negative impacts linked with construction activities include noise, generation of dust and solid wastes, water use increase, and energy demand increase. These impacts might be caused during rehabilitation works under the CFW programme of Component 1, which supports the rehabilitation and maintenance of:
 - **4** Terraces;
 - 4 On-farm water harvesting facilities (e.g. underground cisterns and open wadi pits);
 - Watershed management/rainwater harvesting structures in mountainous area, including but not limited to check dikes and gabions/retaining walls in wadi beds;
 - Spate irrigation works in lower mountains and foot-hills, such as small spate diversion canals, shallow wells, and springs;
 - Irrigation canals and farm-level conveyance systems;
 - **4** Small rural access roads to isolated villages/communities.
- 318. Interventions to be supported under Component 4 may also carry similar, minor, localized, and mitigatable impacts such as the generation of noise, dust, and solid wastes during the construction phase of the hydroponics and aquaponics systems. During operations, risks pertaining to OHS, emergency preparedness, fire safety, etc. apply. This is also pertinent for processing facilities utilized under Component 2 of the project. Operational risks are addressed through training on OHS and the adequate use of PPE, safe operations of facilities, etc., and are listed in Table 8 (risks specific to project activities). In addition, project interventions which rehabilitate terraces and develop hydroponics could increase the use of pesticides (though the project will not finance the procurement of pesticides) and fertilizers due to increased agricultural production. The pesticides and fertilizers would need to be applied and disposed of adequately and in a controlled manner, based on the guidance in the supporting Pest and Pesticide Management Plan (PMP).
- 319. Labour and OHS-related environmental risks include improper use of protective equipment; movement and management of hazardous waste; and risks to community

health and safety due to generation of dust, air pollutants, sewage, and transmission of disease. Civil works increase the inherent risk of transmission of infectious diseases, like covid-19 and/or HIV-AIDS, due to proximity to people and/or waste materials. Transport of materials and construction activities may affect traffic safety and housing structures along the roadside.

- 320. It is not expected that this project will have a negative impact on natural habitats, since most civil works will be done on existing infrastructure. In instances where impact does occur (e.g. expansion of irrigation infrastructure or an access road), then these will be small to moderate, localized, temporary, and can be mitigated through effective control and management of the contracted workers, as well as ensuring effective communication with local communities and local authorities. To mitigate potential impacts on protected areas and biodiversity, no subproject activities will be allowed in the sensitive areas and these measures have been incorporated in the negative list in the annexes.
- 321. Any adverse impacts from the project will be identified and addressed during project implementation which are potentially related to (i) construction and CFW activities; (ii) operations of project-supported infrastructure; and (iii) primary production and support activities.

5.2 Proposed Mitigation Measures

- 322. **Table 7** provides an overview of cross-cutting risks which the project must consider. **Table 8** provides an overview of the identified environmental and social risks/impacts by project activities, along with proposed mitigation measures and reference tools for further guidance/action. A narrative summary of the mitigation measures can also be found below. The tables serve to highlight the initial risks and impacts which may be found in subproject areas, based on the project component/activities under implementation. They are not meant to be exhaustive, as the subproject-level screening will identify the site-specific risks.
- 323. Social risk & impact mitigation measures for the project are predominantly focused on: (i) communication, stakeholder engagement, and grievance redress with affected communities; (ii) ensuring effective engagement with vulnerable persons and communities where they are present (e.g. women, elderly, disabled, youth, and ethnic minorities); (iii) mitigating social tensions through community involvement and engagement; (iv) addressing gender dimensions of the operation including GBV; and (v) labour aspects including worker safety. Negative impacts related to Occupational Health and Safety (OHS) as a result of engaging communities in CFW and small-scale infrastructural works will be addressed through: (i) strict compliance with the Labour Management Plan; (ii) applying and following a construction-focused ESMP (C-ESMP), which includes measures to address OHS on-site; (iii) continuous stakeholders' training and awareness; and (iv) ensuring the use of PPE and security/safety equipment.

324. Environmental risk & impact mitigation measures for the project are focused predominantly on avoiding ecological harm and minimizing disturbances from construction (e.g. dust, noise, waste generation) and/or agricultural production activities (e.g. increased use of pesticides and fertilizers). Risk to ecologically sensitive areas will be mitigated by identifying and mapping out sensitive ecological and agronomical areas within the subproject site (reference can be made to the Environmental Baseline in this ESMF, which identifies protected areas). The project will respect the Exclusion List (Annex 3) and ensure that no banned pesticides are utilized in the project areas (Annex 2 contains a full list of prohibited pesticides). Rather, the project will focus on climate smart agriculture approaches and use of biopesticides (in instances where pesticides are required) to ensure sustainable and ecologically sensitive production practices. The project will adopt an Integrated Pest Management (IPM) approach.

TABLE 7: Cross-Cutting Project Risks

		Impact and risk			Reference	
ESS	Potential Risk or Impact	level (H/M/L)		Proposed Mitigation Measures	Tools	Responsible Entity
ESS2 ESS4	Existing risk of Unexploded Ordinances (UXOs) /landmines if the activities are	High but with mitigation Low (as	•	Liaise with Government of Yemen	Subproject ESMPs	FAO / UNDP/ WFP
	conducted in previously unexplored/unutilized areas	most activities will occur in areas already explored/known)	-	Prior to commencement of activities in a new area, FAO must consult the latest reports from United Nations Mine Action Service (UNMAS) to determine likelihood of UXOs in the area, and contact both UNMAS and the government agency responsible for UXO clearance to assess the risk and provide confirmation on UXO safety before any work is conducted (this involves conducting a UXO risk assessment and obtaining UXO clearance). Avoid areas with UXOs / landmines and, if needed, only proceed in an area only when UNMAS confirms safe removal.		
ESS1 ESS4	Possible increase of spreading COVID-19 and emerging pandemic	M	•	Follow the WB guidance and regulations on Covid-19, as the (i) WHO guidance on prevention of the spread of the COVID-19 virus, (ii) the Governmental instruction; (iii) the UN Inter-Agency Guidance Note on Indigenous Peoples and COVID-19 ⁵⁰⁸ while (iv) seeking also international good-practice on consultations under COVID-19 and innovative	LMP SMP Subproject ESMPs	FAO/ UNDP/ WFP

⁵⁰⁸ https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2020/04/Indigenous-peoples-and-COVID_IASG_23.04.2020-EN.pdf

ESS	Potential Risk or Impact	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
			 approaches established by World Bank, UN, and other development agencies. Continuous Good practices consideration, as Talking Books, radio programs combined with call-in-feedback, small-group discussions once allowed with provision of PPE, etc. as appropriate. Ensure COVID-19 mitigation measure within ESMP and especially regarding Health and Safety issues raised For FFA and resilience and Livelihoods project follow WFP COVID-19 SOPs in programme design and implementation. 	10013	
ESS10	Conflict over selection of beneficiaries, resource allocation, distribution of benefits.	М	 Ensure that the selection of beneficiary households is highly inclusive and covers a broad array of vulnerable peoples. Vulnerable groups and criteria analysis would be set up in POM and SEP guidelines. Ensure that women, particularly female heads of households, are included in the identification of beneficiaries and locations Ensure that the selection of beneficiary locations, modes of selection, and decision making are publicly disseminated 	GRM Subprojects ESMPs & SEPs	FAO/ UNDP / WFP

		Impact and risk		Reference	
ESS	Potential Risk or Impact	level (H/M/L)	Proposed Mitigation Measures	Tools	Responsible Entity
			 Ensure that households benefiting already from another component or project are not disproportionately benefiting from FSRRP activities – the benefits must be shared across the project area, with a focus on those not receiving assistance. Implement Grievance Redress Mechanism (GRM) Conduct proper consultation with the communities prior to commencement of subprojects as per the SEP 		
ESS10	Elite capture and/or manipulation of subprojects by political, ethnic, or military factions. This may include inequitable sharing of subproject benefits due to domination by some political/ethnic groups or leaders.	L	 Conduct gender inclusive local consultations and political economy analysis as part of the overall contextual analysis done before entering new project locations to understand and avoid possible elite capture Ensure that selection of beneficiary locations and beneficiaries, modes of selection and decision making are widely disseminated among the public – as per Stakeholder Engagement Plan (SEP). Beneficiary selection criteria should be transparent and well communicated as per the POM and subproject's SEP. More in-depth monitoring, evaluation, and management arrangements for areas deemed 	Subproject ESMPs & SEPs	FAO/ UNDP/ WFP

	Impact and risk		Reference	
Potential Risk or Impact	level (H/M/L)	Proposed Mitigation Measures	Tools	Responsible Entity
		 to be highest risk, based on the subproject ESMP. Public disclosure of information and setting functional GRMs Communicate and implement the GRM Have a communication plan 		
rgence of violence that places inputs, oment and structures at risk of age or complete destruction	M	 Conduct in-depth contextual analysis, incorporating feedback from separate consultations with men and women, before entering new communities with project investments, including a detailed analysis of potential conflict lines Only implement activities in communities which are predictably stable, or receive prior agreement from potential conflict groups expressing the joined interest in a subproject and committing to implement / maintain the outcomes jointly Continuously monitor the situation in project areas to enable early detection, as much as possible, of conflict to enable necessary 	SMP, SEP	FAO/ UNDP/ WFP
ity and health risks for local staff	M	 adjustments Implement the Security Management Plan, considering local conditions the district level. 	SMP	FAO/ WFP / UNDP
ity and he	alth risks for local staff	alth risks for local staff M	alth ricks for local staff M	alth risks for local staff M Implement the Security Management Plan, considering local conditions the district level,

		Impact and risk		Reference	
ESS	Potential Risk or Impact	level (H/M/L)	Proposed Mitigation Measures	Tools	Responsible Entity
			potential security risks and means of protection		
ESS2 ESS4 ESS7 ESS10	Conflicts over provision of employment or contracts	M	 Ensure that the selection of local staff, contractors and other service providers or local implementers is highly inclusive and covers a broad array of ethnic groups, pastoralists (if applicable), agriculturalists and IDPs and develop a map demonstrating inclusiveness per district, including specific measures to ensure non-discrimination in recruitment and employment, in particular in relation to women and persons with disabilities Ensure that job advertisements and calls for proposals are widely disseminated, including in local languages (and minority languages, if applicable), and selection processes are made as public as possible 	SEP LMP	FAO / Implementing Partners/ Contractors
			 Communicate and implement the general GRM for the project and the GRM established for project workers under ESS2 		
ESS10	Cancellation of programming due to escalated conflict and insecurity can reduce the trust of beneficiaries	Μ	 Ensure that changes to project processes and possible cancellations of project activities are adequately communicated to the beneficiaries and the public, as per the Stakeholder Engagement Plan (SEP) 	SEP GRM	FAO / Implementing Partners

		Impact and risk		Reference	
ESS	Potential Risk or Impact	level (H/M/L)	Proposed Mitigation Measures	Tools	Responsible Entity
			 Ensure the general GRM is easy to access and use so that complaints can be received and responded to in a timely fashion. 		
ESS10	Conflict resulting from attraction of returnee/IDP populations to communities that have improved production systems and social infrastructure	L	Communicate and Implement SEE to enable	SEP GRM	FAO / Implementing Partners
ESS5 ESS6 ESS10	Disputes over use of land and property for project activities where ownership and access rights are contested (for both public and private property, as well as protected areas), based on historical and current large-scale displacement and seasonal migration due to conflict, ethnic / political affiliations, or cultural norms and land tenure laws (which may discriminate against women)	L	 Carry out due diligence to get a comprehensive picture of local perceptions of legitimate housing, land and property rights when identifying beneficiary areas – including perceptions of current, previous (IDP) and seasonal occupants (e.g. pastoralists), as well as local authorities, in order to establish the 	ESMF & exclusion list (Annex 3) SEP; GRM; Coherence of ES documents with the FAO VGGT	FAO / Implementing Partners

		Impact and risk		Reference	
ESS	Potential Risk or Impact	level (H/M/L)	Proposed Mitigation Measures	Tools	Responsible Entity
			 SEP – and follow, to the best extent possible, the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security (VGGT)⁵⁰⁹ Implement the GRM and the GBV-SEA Action Plan for instances related to gender-discrimination within the land tenure arrangements. 		
			 Avoid implementation of the activities in protected areas and/or their buffer zones, as per the exclusion list (see Annex 3) Consider involuntary resettlement to be excluded from activities as referred in the subproject exclusion list. 		
ESS1	Inadequate implementation of E&S safeguards tools due to lack of capacity amongst the implementing partners (IPs)	Н	 Training of the staff within the PCU and relevant implementing agencies/stakeholders on World Bank ESS and development and use of safeguards tools Dedicated Environmental, Social, and Gender risk management specialists in the PCU/implementation agencies to ensure the implementation and monitoring of E&S tools 	ESMF; Subproject ESMPs; TPM	FAO & IPs; Independent Third Party Monitoring company (as needed)

⁵⁰⁹ <u>www.fao.org/3/i2801e/i2801e.pdf</u>

ESS	Potential Risk or Impact	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
			 Dedicated gender specialist in the PCU for the implementation and monitoring of Gender-related safeguards tools Third Party Monitoring (TPM) 		
ESS1	Loss of relevancy of safeguard tools due to changing context(s)	М	 Annual review and update of safeguard tools, if necessary 	All	FAO

TABLE 8: Mitigation Measures for E&S Risks and Imp	pacts by Project Activity
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WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
ESS2, ESS4	Construction/rehabilitation of irrigation and agricultural production infrastructure under Component 1, and/or construction of hydroponic/aquaponic systems under Component 4.	Child and/or bonded labour	L	 Identification of risk during the subproject screening; Sensitization training for communities re: age- appropriate work; Adherence to the LMP and ESMP, with no persons under the age of 18 and/or in bonded-labour situations engaged with construction activities in the project; 	ESMF; LMP; SEP.	Implementing partners/ contractors
ESS3		Localised and short- term soil erosion, resulting in gullies, washing away soil, bare rock/soils, silting, blocking channels	М	 Only clear areas earmarked for small and medium scale construction and which would not dramatically change the hydrology of the area (determined by the site-specific EIA); moreover, clearing will be limited to the excavation area Reuse or Dispose of the excavated soils immediately after excavation completion based on the waste management plan (WMP) and avoiding protected areas/sites of ecological importance Integrate the World Soil Charter guiding principles as appropriate, to ensure sustainable soil management and to restore degraded soils Consider the use of temporary storm water control devices and associated cut-off drains/bunds to minimize sediment transport into watercourses 	ESMF Subprojects ESMPs & C-ESMP with Waste Management Plan (WMP)	Implementing Partners/ Contractors
ESS2 ESS4		Localized and short- term dust emission and noise pollution	М	 Restrict activities that create lots of noise—e.g., vibrations, heavy equipment moving earth, excavations, to normal working hours (7h00-17h00) 	LMP Subprojects C-ESMP	Implementing Partners/ Contractor

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
		from earth moving activities by excavators and trucks plus other machinery such as mixers, dumpers, etc. Noise from workers is also anticipated.		 Require community workers/contractor(s) to use equipment and automobiles that are in good working condition to reduce noise or exhaust fumes. Require community workers/contractor(s) to spray water regularly when clearing land to reduce the dust. Further suppress dust on construction roads during use. Encourage use of silencers on generators. Require contractors to keep construction machinery, generators and vehicles in good working condition Carry out community consultations well in advance of commencing construction activities, informing the nearby population regarding the construction activities and possible impacts of noise and dust GRM will be established in the area to address the public complaints regarding issues such as noise from the construction sites Provide workers and visitors with the right noise and dust personal protection (i.e. dust masks and earmuffs/buds for workers exposed to noisy environments) 		
ESS3 ESS6		Localized loss of biodiversity and associated benefits during site clearing prior to construction.	L	 Screen out proposed site in protected areas or sites of natural/cultural importance within the broader region or landscape; Limit clearing of trees or grass to the construction site. 	ESMF Subprojects ESMPs & C-ESMP	FAO / Implementing Partners/ Contractors

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
				 Plan for biodiversity offset by planting of trees or grass to replace lost plant species, if relevant. 		
ESS3		Solid and liquid wastes generated from the influx of community workers	M	 WMP shall be developed as part of the C-ESMP before construction works begin to guide both solid and liquid waste management. Collection, treatment, and disposal of solid and liquid wastes based on the WMP. 	Subprojects C-ESMP with WMP	Implementing Partners/ Contractors
ESS2 ESS4		Safety and nuisance hazards such as noise, congestion and increased accidents and incidents from higher vehicular traffic around construction sites	M	 Prepare a traffic management plan (TMP) as part of the C-ESMP depending on the traffic volume and the condition/nature of local routes Carry out community consultations before public works commence (as per SEF and future SEPs) Carry out sensitization on road safety within the communities to ensure safe use of the road(s) and avoidance of accidents Erect safety signage at appropriate places Promote safe driving practices among drivers Implement GRM 	SEP; Subproject- level SEP/LMP/C- ESMP	Implementing Partner / Contractor
ESS2		Increased occupational accidents and incidents, including injuries and illnesses caused by eminent construction and mechanized processing hazards (e.g. handling of	M	 Use of explosives is prohibited within the project and any/all subprojects. Hire an ESHS Specialist in subprojects with construction activities; Prior to construction, ensure EHS risk assessment is conducted, all hazards are identified, management controls are documented in the C-ESMP or Occupational Health and Safety Management Plan; Ensure the OHS plan or the C-ESMP is implemented by all implementing parties; 	LMP	Implementing Partners/ Contractors

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
		construction or farm equipment; stepping on or using sharp objects; spills and leakage of hazardous materials as a result increased labour; etc.)		 Take all safety precautions to address hazards for workers and visitors and the nearby community including safety/warning signage, safety barrier around the construction site and safe driving practices; Provide personal protective equipment (PPE) to workers (helmets, boots, masks, etc.) as well as training on Occupational Health and Safety measures and adequate use of PPE, as detailed in the Labour Management Procedure (LMP) Ensure integrity of workplace structures, workspace, fire precautions, potable water supply, clean eating area, lighting, safe access, lavatories, showers (if applicable), first aid, etc. Implement GRM for workers as per ESS2 		
ESS2 ESS4		Increased incidences of communicable diseases like tuberculosis, malaria, diarrhea, Covid-19, etc. due to an influx of workers at construction sites	L	 Provide proper sanitation and waste disposal facilities based on a site-specific Waste Management Plan (WMP) Carry out training/awareness campaigns for the prevention of communicable diseases Empty/drain all areas that may hold standing water Ensure use of PPE and, where possible, social distancing to reduce risk of disease transmission (particularly for COVID-19) 	LMP; Subprojects C-ESMP with WMP	Implementing Partners/ Contractor
ESS2 ESS4		Increased incidence of GBV-SEA due to	M	 Enforce total adherence to ethical code of conduct Training and strong communication of zero tolerance to sexual violence 	LMP	Implementing Partners/ Contractor

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
		an influx of workers at construction sites		 Implementation of the Framework for Addressing Gender-Based and Child Violence, Sexual Exploitation and Harassment against Women and Children and related GBV Action Plans Communication and implementation of GRM with specific inclusion of anonymous reporting 	ESMF with GBV action plan	
ESS5 ESS10		Obstruction of installations by persons, or commandeering of installations for uses not foreseen in the project document	L	 Ensure tenure rights are respected and that those receiving improvements to their land clearly understand their responsibilities and benefits accrued through the project. Communication and implementation of GRM with specific inclusion of anonymous reporting 	LMP SEP	Implementing Partners/ Contractors
ESS10	Food production activities & rebuilding of the natural resource base for crops and livestock	Crop and cultivation techniques may not be suited to the needs and constraints of the target communities	L	 Conduct culturally-, gender-, and ethnically- sensitive, context-specific consultations in all project areas to ensure participation and ownership of the suggested resilient agricultural practices, tailoring the activities interventions to the specific district 	SEP	FAO
ESS3 ESS6		Increased pest and disease resistance and dissemination of crop diseases	L	 Incorporate IPM approaches Involve rotational and intercropping practices which preserve greater diversity in habitat thus reducing impact of pest and diseases Crop varieties used should carefully be selected and tested in order to avoid new diseases and pests 	PMP	FAO / Implementing Partner / Contractor
ESS3		Greenhouse gas (GHG) emissions and water and soil quality pollution and	L	 Application of Integrated Pest Management (IPM) and the Pest Management Framework Plan (PMP) to provide guidance on the use of organic manure 	IPMP; ESMP	FAO / Implementing Partner / Contractor

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
ESS3;		degradation from overuse of fertilizer and/or pesticides	L	 and reduced use of fertilizers (this may include integration of livestock with crops when feasible/beneficial) Training for farmers on IPM, as well as the correct techniques of agrochemical application in instances where it cannot be avoided (e.g. correct handling, use of personal protective equipment (PPE), labelling, application, and disposal of agro-chemicals under field conditions) This ESMF and site ESIA/ESMP will provide guidance on the proper management of fertilizers Use IPM practices to control pests 	PMP;	FAO /
ESS4		potential health risks due to inappropriate pesticides application		 Monitor the weather when applying pesticides and avoid very hot or windy days Follow label directions when using pesticides Consider staying inside with doors and windows closed when pesticides are being applied near houses/ settlements Wear adequate personal protective equipment when applying pesticides or nearby application zones of pesticides 	ESMP; SMP	Implementing Partners/ Contractor
ESS3; ESS4; ESS6;		OHS risks associated with operating processing facilities and other project- related infrastructure for production	L	 Training on adequate OHS and related safety requirements for operations of processing facilities and related project-supported infrastructure 	ESMP	FAO/IPs

WB ESS	Project Activities	Potential Risks /Impacts	Impact and risk level (H/M/L)	Proposed Mitigation Measures	Reference Tools	Responsible Entity
ESS3; ESS4; ESS6		Misuse of treated seeds	L	 Mark treated seeds as "Not for Consumption" Provide training to beneficiaries so that agricultural inputs are used safely and correctly 	SEP ESMP	FAO/IPs
ESS2; ESS10	Cash-for-Work and Unconditional Cash Transfers for those in need	Labour risks associated with the cash-for-work (CFW) projects	М	 Adhere strictly to the SMP, including additional security provisions during the moment of cash transfers; 	SMP, LMP	FAO / Implementing Partner / Contractor
ESS10		Risk of exclusion of vulnerable people and groups in most need of assistance	L	 Clear and transparent targeting of beneficiaries as per the ESMF, PAD and POM with eligibility criteria; Consistent and iterative community consultations to ensure understanding and reduce tensions over benefits distribution 	PAD & POM; ESMF; SEP; ESMP	FAO / Implementing Partners

VI. PROCEDURES FOR REVIEW, CLEARANCE, AND IMPLEMENTATION OF SUBPROJECT E&S INSTRUMENTS

6.1 Objective and Approach

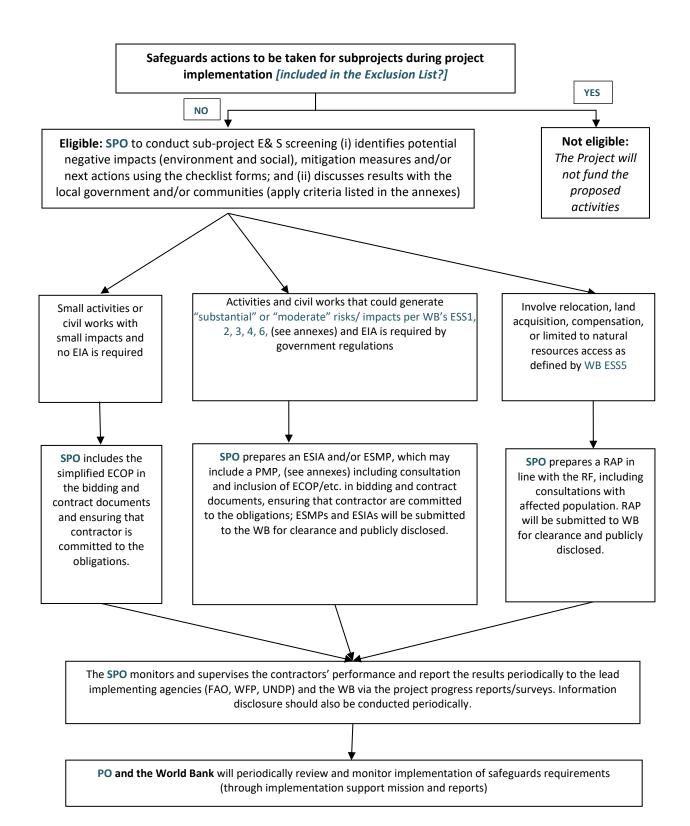
- 325. Since some of the project activities and subprojects will be identified during implementation, this ESMF was prepared to apply to all subprojects and investment activities. The main objective of the ESMF process is to ensure that the subprojects and activities financed by the project will not create adverse impacts on the local environment and communities, and the residual and/or unavoidable impacts are mitigated in line with the E&S policies of the World Bank and implementing agencies. That said, this ESMF is not being used solely as a compliance process: it goes beyond compliance and takes a proactive approach in design. Similarly, the grievance redress mechanism (GRM) included in this document is not just about being a last-resort mechanism; rather, the GRM is about creating a project culture of transparency with built-in feedback systems. As such, the ESMF is taken as a positive tool to help the PCU in identifying and developing activities for greater environmental and social co-benefits. To ensure that the social and environmental issues are addressed properly (i.e. in accordance and compliance with the WB ESF, FAO & fellow UN agencies' safeguards standards, and national legislation), all project activities shall systematically undergo a thorough screening, assessment, review, and clearance process before the physical execution of project activities.
- 326. During implementation, identified activities/subprojects and TA support will be screened for and given a risk classification (as per Annex 5 of this ESMF) based on their E&S issues and applicable safeguards standards (ESSs), after which any necessary ESA and other E&S instruments will be prepared based on the requirements laid out in this ESMF. The assessments, instruments, and mitigation measures should be proportionate to the nature and scale and the potential risks and impacts of the project and consistent with the requirements of the Bank Environmental and Social Framework (ESF). The safeguards plans prepared for subprojects may include but are not limited to: Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plans (ESMPs); SEPs; LMPs; and ECOPs, including health and workerrelated issues pertaining to sexual exploitation and abuse (SEA). In addition, relevant Resettlement Action Plans (RAPs) will also be prepared in line with the requirements of the RF, if resettlement is required. Terms of reference, work plans, and documents defining the scope and outputs of any TA activities will be drafted so that the advice and support provided is also consistent with the Environmental and Social Standards (ESS 1-10). Based on the initial screening, any subsequent ESA would cover the requirements established under the relevant ESSs for that subproject and identify the environmental and social risks and impacts including direct, indirect, cumulative, and residual impacts.

6.2 Key Steps

- 327. The ESA process described in this ESMF is comprised of four steps, as depicted in **Figure 3**. This section briefly describes key steps.
 - STEP 1: Screening for eligibility and E&S issues including risks and impacts using screening criteria, application of ESSs, and identification of and needs for preparation and implementaion of E&S documents/instruments.
 - **STEP 2:** Sub-project Categorization.
 - STEP 3: Preparaton of E&S documents as required including the development of mitigation measures, Stakeholder Engagement Plan (SEP), Labor Management Procedures (LMP), related grevience redress mechanisms, and the finalization of the Environmental Codes of Practice (ECOP) to be incorporated into bidding and contractual documents and subjected to close monitoring of the contractor performance. ECOPs clearly identify mitigation measures for potential negative impacts during site clearance and construction, including the management of contractors, chance finds, EHSG application, and COC on SEA.
 - STEP 4: Clearance and disclosure of of E&S documents; and
 - **STEP 5:** Implementation, monitoring, and reporting.
- 328. The risk analysis, impact assessment, and preparation of E&S documents for all subprojects will be carried out during implementation. At this point in time, most activities are substantial risk but should not require a full ESIA; however, if this assessment changes during a screening, then a follow-on ESIA must be conducted. Preparation of a subproject ESMP occurs when the subproject activities have been clearly identified and locations are known. During the preparation of the ESMP, due attention will be given to address the issues of labor and working conditions (ESS2), resource efficiency and pollution prevention and management (ESS3), community health and safety (ESS4), land Acquisition/restrictions on land use and involuntary resettlement (ESS5), biodiversity conservation and sustainable management of living natural resources (ESS6), and stakeholder engagement and information disclosure (ESS10).

Figure 3. Flowchart for Safeguard Actions for Subprojects

Legend: "PO" is project owner; "SPO" is subproject owner



- 329. Key safeguards actions can be highlighted as follows:
 - Small works to be carried out under Components 1 will incorporate the simplified ECOP into the bidding documents and consultant contracts, with contractor

performance closely monitored by the responsible persons of the implementing agencies.

- If screening highlights the need for land acquisition, restricted land use, and/or involuntary resettlement, Resettlement Plans (RPs) will be made in line with the ESS5 and the guidelines found in the Resettlement Framework.
- All the E&S documents of a given subproject will be submitted to the PCU, and subsequently checked by FAO and submitted to the WB for clearance prior to the subproject's respective approval/implementation.

STEP 1: E&S Risk and Impact Assessment

330. This step (Step 1) aims to confirm the eligibility of subproject and/or activities to be financed by the Project as well as identify the potential E&S issues and assess potential impacts of the subprojects/activities including needs for preparation of E&S documents as required by the ten safeguards standards using an E&S screening checklist. The agencies responsible for implementing the subproject/activity will be responsible for undertaking and signing the screening forms and may refer to Annex 5 of this ESMF for the applicable forms. Consultation with the World Bank safeguards specialists will be made as needed, depending on subproject complexity.

STEP 2: Sub-Project Categorization

331. This step (Step 2) takes all of the potential E&S issues and impacts of the subproject/activities assessed under Step 1, and categorizes the subproject based on the cumulative risk rating (utilize Annex 5, as needed, for guidance), based on: low risk, moderate risk, substantial risk, and high risk.

STEP 3: Development of E&S Documents

332. This step (Step 3) is focused on preparing safeguards documents in relation to the issues identified in Step 1 and the categorization from Step 2. Guidelines for the preparation of an ESMP are provided in Annex 6, whereas an initial SEP and LMP have been developed separately. Separate guidelines for development of Resettlement Action Plans (RAPs) are provided in the RF; likewise, guidelines for the development of sub-project PMPs are provided in the project-level PMP (a separate document). The implementing agency which presides over a given subproject will be responsible for developing the respective safeguards documents for that subproject. The documents should be submitted to the PCU (in particular, the FAO safeguards specialist) prior to submission to the World Bank. Consultation with a WB safeguard specialist for complex subprojects may be made as needed.

333. It is also necessary that the implementing agencies of the subprojects and activities are responsible for preparation of E&S documents which may be required by the Government of Yemen, based on the national legislation⁵¹⁰ and secure approval of responsible agencies.

STEP 4: Review, Approval, and Disclosure of E&S Documents

- 334. **PCU and WB review and clearance:** Before approval and commencement of subproject works, the Subproject Officer (SPO) will submit all E&S documents to the PCU. After the PCU confirms that the documents are ready for submission, the PCU will submit the documents to the World Bank for review, clearance, and public disclosure. The World Bank will conduct reviews of the all ESMPs prepared. Any move towards a more ad-hoc review is dependent upon built E&S capacity of the implementing agencies (IA) with the support of the E&S capacity-building training under the project.
- 335. All E&S documents will be posted on the official websites of the implementing agencies (FAO, UNDP, WFP, and implementing partners), as well as the Government websites of MAI/MOPIC, and hardcopies in the local language will be available at the PCU and subproject sites. The PCU must publish a notification of disclosure of information and solicit comments within the month following that disclosure date, ensuring that all relevant communities have been reached. The English version of the ESMPs will be disclosed on the WB website.
- 336. **Government approval:** The WB also strongly recommends and encourages that the responsible government agencies approve the ESIA documents if/when required by national legislation. Any of these documents, as well as the approval conditions (if any), will be provided to the lead UN agencies and the WB for information and will be disclosed to the public.

STEP 5: Implementation, Supervision, Monitoring, and Reporting

- 337. FAO, UNDP, and WFP will be responsible for coordinating project monitoring activities for their respective components and sub-components. This includes ESMF implementation, supervision, monitoring, and reporting as an integral part of project and subproject implementation. Each E&S staff hired for the project is responsible for their specific activities. World Bank E&S specialists may also supervise and monitor the implementation of E&S activities during the WB implementation support missions. Detailed reporting requirements for E&S are indicated in section 7.2 of this ESMF and in the ESCP.
- 338. **Incident Reporting:** The PCU is responsible for notifying the World Bank within a maximum of 48 hours after learning of an incident or accident.

⁵¹⁰ Please refer to Annex 1 (Legal Gaps Analysis) for an overview of the national requirements.

- 339. **Results Monitoring and Evaluation:** The UN agencies will be responsible for coordinating project monitoring activities for their respective Components and Subcomponents. The objectives of the Agency M&E system are to measure input, output, and outcome indicators to provide project staff and stakeholders with regular information on project implementation and outputs, identify potential problems, and determine to what extent the project is achieving its development objectives. The M&E methodology will be aligned with the definitions and collection methodologies of the project to enable data aggregation and consolidation at the project-wide level. The UN agencies will utilize their existing M&E systems as outlined in the PAD and confirmed in the Financial Agreement (FA).
- 340. Monitoring and evaluation will be based on the collection and reporting of data on the PDO and intermediate indicators (see the Results Framework (RF) in the PAD for a full description of these indicators). The results will be presented to the Bank in semiannual progress reports as well as the Mid-Term Review (MTR) and final independent evaluation reports. A baseline survey will be conducted in the project areas. Additional surveys will be held at the MTR stage and project completion. For their respective activities, the UN agencies and National Institutions will use the detailed data collected through the standard reporting formats for different levels and other relevant documentation, including formats for mobile team reporting and integrated outreach reporting on all interventions based on Agency M&E systems. At each UA agency or National Institution hub office data will be collected and reviewed before it is consolidated at the central level by the relevant UN agency.
- 341. In addition to regular M&E activities, each UN agency will use an independent TPM Agency (TPMA) to assess quarterly performance and field monitoring of project implementation. The TPMA will be expected to: (1) track performance through the collection of appropriate and credible data and other evidence; (2) analyze evidence to inform decision-making by World Bank and UN agency management; (3) recommend improvements in effectiveness and efficiency as necessary; and (4) report on performance and lessons to facilitate learning and support accountability, including learning from beneficiaries' experience. Data collection, analysis and reporting will be carried out in a sex-disaggregated way. The terms of reference (TORs) for the TPMAs will be agreeable to the Association as per the FA. Where existing TMP arrangements are in place (such as all UN agencies have existing TPMAs already), the existing arrangements will be adopted for use under the project. After UN Agency review, the TPM reports will be shared with the Bank, no later than three (3) business days after its receipt, to enable concurrent supervision and timely assessment of project implementation.

VII. IMPLEMENTATION ARRANGEMENTS

7.1 Responsibility for ESMF Implementation

- 342. In line with the project's implementation arrangement discussed in Chapter II (please refer to Section 2.3 of this ESMF for details on hiring arrangements), the implementing agencies are also responsible for ESMF implementation. FAO will be the lead agency for coordinating application of and adherence to the ESMF, with each UN agency (and subsequent implementing agency) responsible for hiring relevant safeguards staff and reporting on a regular basis to the FAO safeguards specialist for the project to facilitate coordinated reporting to the World Bank. The responsibility of the lead UN agencies (FAO, UNDP, WFP) includes overall planning and supervision of E&S activities, including the mobilization or hiring of qualified E&S capacity building staff/consultants individuals⁵¹¹ or a firm to provide E&S training and TA including supervision, monitoring, and reporting of E&S implementation to the WB every six months.
- 343. When feasible, the PCU will also ensure training and coordination with MAI and MOPIC to build national safeguards capacity. Though resettlement is not envisaged, if land acquisition and resettlement is found to be involved, the PCU will also ensure that arrangements comply with ESS5 and the RF.
- The implementing agencies are responsible for: (i) mobilizing or hiring qualified staff 344. to prepare E&S documents (e.g. subproject level ESMPs, SEPs, and LMPs, etc.), including finalization of ESMPs, ECOPs and Code of Conduct on GBV and VAC; (ii) securing WB clearance of E&S documents and approval of the government; and (iii) implementing the ESMPs, SEPs, RAPs, and LMPs as needed. The safeguards staff - or firm, if applicable should assist during the implementation of the ESMP, SEP, and LMP, including monitoring of environmental quality and preparation of E&S monitoring reports for the PCU. Subproject owners must ensure that the (i) final subproject design has incorporated measures to mitigate potential negative impacts during construction and operations; (ii) final ESMP, ECOP and COC on Workers' behavior and SEA are incorporated into bidding and contract documents; and (iii) contractors are aware and committed to complying with these obligations, with E&S actions built into the contract cost. Contractors must hire an Environmental, Social, Health and Safety (ESHS) Specialist as part of their key personnel on-site for any construction activities. After approval of subproject-level safeguards documents, the subproject owner is responsible for ensuring that the ESMP, SEP, LMP, ECOP, and COC on SEA (if applicable) are effectively implemented and monitored. Before construction, the subproject owner will assign the ESHS specialist to be responsible for day-to-day supervision of contractor performance on E&S and report the results in the subproject progress report.
- 345. **Incident Reporting:** In case of accidents/incidents, the UN agencies and their implementing partners will promptly notify the World Bank of any incident or accident related to the project which has, or is likely to have, a significant adverse effect on the environment, communities, or workers, including: (i) exploitation or abuse of vulnerable groups; (ii) sexual exploitation and abuse and sexual harassment (SEA/SH); (iii) child labor; (iv) bonded/forced labor; (v) injuries to workers that require off-site medical

⁵¹¹ These could be specialists from within the agencies themselves, for example, safeguards specialists from their regional or headquarters offices.

attention; (vi) misuse or spills of pesticides; and/or (vii) fatalities, among others. The UN agencies & implementing partners will provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address the concern. Subsequently, UN agencies will prepare an Initial Investigation Report within 48 hours, once confirmed, and Detailed Report within ten days of the initial report indicating possible root causes analysis and proposing corrective actions to prevent its recurrence.

7.2 Reporting Arrangements

- 346. The E&S performance will be included in the subproject and overall project progress reports. Implementation teams at the governorate level, with assistance from the district/field-level subproject teams (e.g. ESHS specialists hired by contractors, subproject owners, etc.), will submit E&S performance surveys concerning subprojects to the PCU safeguards specialists on a monthly basis. At the central level, FAO will prepare the formal E&S monitoring report twice per year for submission to the World Bank with timely inputs from UNDP, WFP, and local implementation partners describing the project's progress and compliance with the ESMF and other requirements. The reporting requirement is described in **Table 9** below.
- 347. The progress surveys and/or reports submitted to the PCU must include sufficient information on subproject implementation progress and E&S issues related to ESMF implementation. The overall progress report from PCU to be submitted to the World Bank must include adequate information regarding: (i) preparation and disclosure of the E&S instruments for subprojects; (ii) implementation progress of the ESMP, including incorporation of the ECOP/COC on SEA/other ESMP requirements pertaining to the contractor in the bidding and contractual documents; (iii) monitoring and supervision on implementation performance of contractors, ESHS specialists, and subproject & governorate-level teams, according to the ESMP, ECOP, and COC on SEA; (iv) updates on capacity building activities, implemented at site-level and PCU-levels; and (v) any challenges, solutions, and lessons learned during E&S/ESMF implementation.

1	Report or Survey Prepared by	Submitted to	Frequency of Reporting
1	Contractor to the Employer	Subproject owners	Once before construction commences and monthly thereafter
2	ESHS Specialist	Subproject owners	Monthly
3	Subproject owners (implementing agencies) on GRM	PCU	When the community has any complaint about the subproject E&S/ESMF implementation
4	Subproject owners	PCU	Approximately every two months (utilizing reports from the contractors/ESHS Specialists, etc.), but no less than four

Table 9.	Reporting	Procedures
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			times per year (every 3 months) in order to facilitate reporting of the lead UN agencies (FAO, UNDP, WFP) to the World Bank through the main PCU
5	PCU	WB	Once every six-months, in accordance with the ESCP and legal agreement.

7.3 Incorporation of ESMF into Project Operational Manual

348. The ESMF process and requirements will be incorporated into the Project Operation Manual (POM) and the PCU will provide training to ensure that the subproject owners understand the process and will supervise and monitor ESMF implementation periodically. The E&S section in the POM will refer to the ESMF annexes, such as the screening templates (Annex 5 of this ESMF), as needed.

VIII. CAPACITY BUILDING, TRAINING, AND TECHNICAL ASSISTANCE

8.1 Institutional Capacity Assessment

- 349. The three lead agencies, FAO, UNDP, and WFP, are discussed here with regard to their capacity for implementing and managing safeguards, and requirements for national implementation partners are discussed at the end of the section. FAO has prior experience in supporting the implementation of Bank-financed projects on the ground in Yemen. Since 2017, it has led the implementation of SAPREP toward satisfactory achievement of results and, more recently, became the implementing agency for the Desert Locust Response Project (P174170). SAPREP, which was implemented in collaboration with SFD, supported a set of similar activities, including CFW and support to agricultural production by providing input kits and ensuring access to associated services (such as animal health services). The project's implementation performance rating is Satisfactory. Given their prior experience in implementing SAPREP, FAO is fully aware of the Bank's fiduciary and environmental and social requirements. FAO has put in place enhanced M&E mechanisms to supervise local implementation partners and has also been using TPM. Moreover, it has conducted extensive training and capacity building efforts since 2018 to ensure comprehension and compliance of safeguards in all subproject areas with the local implementation partner, SFD.
- 350. **UNDP** has built a successful partnership with the World Bank in implementing the CFW activities of the Emergency Crisis Response Project (ECRP) since 2016 and current Emergency Social Protection Enhanced COVID19 Response Project (ESPECRP). UNDP is partnering with the SFD and PWP and their community networks to deliver services. Given their prior experience in implementing the ECRP and ESPECRP, the UNDP is fully aware of the Bank's fiduciary and environmental and social requirements. UNDP

established an M&E system and a robust safeguard framework to ensure proper project management, assuring stakeholders and providing accountability and is also using a TPM mechanism to monitor project implementation. UNDP communicates with the World Bank monthly on project implementation and to address emerging challenges. UNDP has also had good collaboration with FAO on water resource management, aimed at enhancing access to water in agriculture and improving the effective use and management of scarce water resources in Yemen.

- 351. **WFP** is the world's largest humanitarian organization focused on emergency food crisis response, and the largest provider of school meals. In Yemen, in addition to food and nutrition interventions, such as school feeding programs, WFP is also engaged in livelihoods development activities through a range of instruments, including Food-for-Assets and Food-for-Training in close cooperation with FAO. WFP's vulnerability mapping and assessment (VAM) expertise is the basis for joint, nation-wide food security and livelihood assessments which inform the IPC for Yemen, as well as regular food security and price monitoring and analysis. WFP is an implementing agency under the World Bank-financed Restoring Education and Learning Project (P175036), where it contributes to the school feeding activities, and it has prior exposure to the Bank's fiduciary and environmental and social requirements.
- 352. For national implementation partners like SFD, SMEPS, and PWP, training and capacity building on the application of the ESF and ESSs will be required. The three leading UN agencies, under the overall guidance of FAO, will be responsible for providing refresher training and sensitization training to increase familiarity with the World Bank's new ESF. Some of the works to be completed are of substantial risk (e.g. CFW infrastructural rehabilitation), thus the training on how to screen for small-to-medium scale infrastructure and ensure follow-up assessments (if the screening deems necessary) prior to sub-project implementation is also of particular importance.

8.2 Training and Technical Assistance

353. Training and capacity building on the ESF should focus on familiarity with and understanding the concepts of proportionality and adaptive management. It must also cover the requirements of the SEP and LMP, particularly as they relate to (i) contractor management and monitoring of E&S issues concerning labour and OHS; (ii) community health and safety; (iii) environmental health and safety; and (iv) requirements for systematic stakeholder engagement. The targeted training programs focused on E&S risk management could also help strengthening inter-agency coordination and cooperation which is critical for ensuring effective management. Given the project structure and the plan to implement a number of subprojects in each governorate, significant inputs from qualified national consultants will be required, along with on-the-job training on assessing risks and impacts management during preparation and implementation. Specifically, and as indicated within the project's ESCP, focus will be given to:

- Training of FAO, UNDP, WFP and implementing partners' staff on ESS procedures, including implementation, management of contractors, and monitoring and evaluation;
- Training of Trainers (TOT) training on environmental and social assessment and management (for UNDP, FAO, WFP and implementation partners' professional staff);
- Training on the GRMs (project level, ESS2, and handling of GBV/SEA/SH reports when received through those GRMs);
- Code of Conduct (COC) to prevent SEA/SH;
- TOT on gender, GBV, and community response and protection;
- Training of contracted parties on labour management and monitoring/reporting requirements;
- Training of field staff/workers on community management of acute malnutrition, awareness on the prevention of the spread of infectious diseases and health practices;
- Training of field staff/workers on OHS measures; and
- Training of technicians on pesticide management, application techniques, and necessary personal protective equipment (PPE).
- 354. During implementation of Project, E&S training and TA will be provided to the implementing agencies both at the Project and subproject level. An overview of this training can be found in **Table 10**. During the first two years, the PCU will conduct at least two safeguard training workshops per year (one on environment and one on social) to the subproject owners regarding the ESMF process and needs for preparation of safeguard documents at the subproject level (ESMP, SEP, LMP, RAP, PMP, GBV Action Plan etc.) as needed. An international safeguard specialist will participate in these training workshops as much as possible⁵¹². Safeguards technical training for any other specific issues and related aspects should also occur at least once per year for the following years.
- 355. Priority for training should include, but is not limited to, the following:
 - The ESMF process and guidelines for preparation, implementation, and supervision of E&S instruments (ESMP, SEP, LMP, ECOP/COC on Workers behavior and SEA) designed FSRRP and its subprojects;
 - (ii) Specific training on the SEP and LMP with regard to planning and implementation, including the application of differentiated GRMs to more effectively respond to local complaints;
 - Specific training on supervision and monitoring of contractor performance, including forms and reporting processes; basic knowledge on health and safety; good construction practices for reducing potential impacts on local environment

⁵¹² It is also advisable to have, when possible, a World Bank Safeguards Specialist present at some of the trainings.

and local peoples; COC on SEA; and communication and GRM procedures and other social issues related to communicable diseases (including covid-19), etc.;

- (iv) For labour-related works under Component 1, site-specific ESMPs shall include weekly toolbox meetings at the work sites with a focus on the following themes: child labor; forced labour; gender-based violence, including the mechanism for submitting GBV/SEA complaints; health and safety; compliance with codes of conduct; etc. Site engineers will provide a weekly or ad-hoc (if and when required) toolbox talks and/or meetings with the construction workers on ESHS risks associated with the construction activities, which have been executed during the past week and for those which are foreseen to be carried out during the next week.
- (v) Specific training on IPM; safe use and disposal of pesticides/herbicides/chemical fertilizers being used in primary production;
- (vi) Specific training on waste management, including hazardous and bio-hazardous waste;
- (vii) Specific training on the use of PPE and safety equipment for both agricultural activities and labour/construction activities.
- 356. When possible and relevant, representatives from the Government of Yemen (MAI, MOPIC) are encouraged to be involved with the trainings so that national capacity and sensitization to the ESF requirements is built over time. Specific target groups for the key training for a beginning program are indicated in **Table 10**.

	Table 10: Safeguard training at the beginning of Project implementation				
No	Contents	Target Groups for Training			
1	RF and SEP including subproject-level RAP and SEP preparation	PCU, governorate-level implementation teams.			
2	Concept of the ESF and ESSs (including related documents like the ESMP, SEP, LMP, and ECOP/COC on SEA (if needed)) plus an overview of the process, implementation, monitoring and reporting needed for the ESMF	PCU, implementation partners at the governorate and district levels, and Government of Yemen staff from MAI/MOPIC when/where relevant.			
3	ESMP, SEP, LMP preparation and monitoring, including (i) contract management and capacity improvement and (ii) finalizing of ECOPs and codes of conduct to meet SEA requirements (if deemed necessary)	PCU, implementation partners at the governorate and district levels, and contractors.			
4	Environmental and social safeguards monitoring skills improvement	PCU, safeguards specialists of the implementation partners, contractors/relevant local authorities.			

	Table 10: Safeguard training at the beginning of Project implementation			
No	Contents	Target Groups for Training		
5	Training on ECOP and COC for SEA compliance and environmental health and occupational safety measures, prevention of communicable and infectious diseases	Field-level implementation partners and/or contractors for construction/CFW-related subprojects.		
6	Best practices for (i) waste management; (ii) safety equipment/use of PPE; (iii) OHS	PCU, safeguards specialists of the implementation partners, contractors/relevant local authorities.		
7	Safe use of pesticides and agro- chemicals; safe management of biohazardous waste.	Farmers, local communities involved with the project's agricultural production activities.		

8.3 Technical Assistance on E&S Capacity Building

357. The UN implementing agencies (FAO, UNDP, WFP), with the support of their respective regional offices and headquarters (when needed/applicable), will be responsible for providing E&S training to the PMU and partner implementation agencies (e.g. SFD, SMEPS, PWP). The training will cover safeguards implementation, supervision, monitoring, and reporting requirements and will build on prior training conducted under prior and contemporary projects; specifically: SAPREP and the Yemen Desert Locust Response Project. If required by the World Bank, the PMU will also mobilize an independent, third-party monitoring agency to monitor implementation, in addition to other E&S consultants to assist in the preparation and/or monitoring of various E&S activities during implementation. At the governorate level, the implementing agencies will also mobilize E&S consultants (either individual or hired through a firm) to assist in the implementation of ESMF, preparation of E&S documents, and mitigation measures of the subprojects under their responsibility, as needed.

IX. ESMF IMPLEMENTATION BUDGET

358. The ESMF implementation budget includes: (a) costs for preparation of E&S documents of subprojects, including consultation with local authorities and communities; (b) costs for supervision, monitoring, and training workshops on E&S issues (including independent monitoring for subproject-specific LMPs, etc., if requested by the World Bank); (c) costs for the qualified national (individual or firm) consultants for capacity building and training on ESMF implementation and the concepts of the ESF and ESSs; (d) implementation and monitoring costs for the ESMPs, SEPs, and LMPs; (e) implementation costs for ECOP and Codes of Conduct for GBV/SEA (if identified during screening), and any site-specific measures; and (f) compensation costs. The World Bank and implementing agencies will co-finance the ESMF implementation budget, with the

exception of compensation costs, which should be provided by the Government of Yemen.

359. Indicative costs for items (a), (b), and (c) across the three UN implementing agencies amount to approximately USD 1.18 million⁵¹³ and will be allocated for implementation of the ESMF (see **Table 11**), with the central PMU responsible for budget management, and subject to availability of funds under the project. Other costs are already covered in subproject costs directly, and any compensatory payments (e.g. resettlement, etc., as stipulated in the RF) will be covered by the Government of Yemen (either central or at the governorate level).

Table 11. Estimated ESMF implementation cost			
E&S Activities	Estimated cost (USD)	Remarks	
(a) Cost for preparation of E&S documents	UNDP: USD 150,000		
(LMPs, PMPs, ESMPs, etc.) of subprojects including consultation with local	WFP: USD 60,000		
authorities and communities;	FAO: 78,000 ⁵¹⁴		
(b) Cost for supervision, monitoring, and	UNDP: USD 60,000	The PCU will be	
training workshops on E&S issues, including independent monitoring for	WFP: USD 50,000	responsible for management of	
LMPs, ESMPs, etc. (if requested by WB);	FAO: 338,051 ⁵¹⁶	this budget ⁵¹⁵ .	
(c) Cost for the qualified (individual or	UNDP: USD 70,000		
firm) staff/consultants for capacity			
building and training on ESMF implementation support and the concept	WFP: USD 35,000		
of ESF and ESSs application.	FAO: 338,051 ⁵¹⁷		

X. GRIEVANCE MECHANISM (GM)

360. In line with the ESS10, the project/subproject owner is required to establish and implement a GM to respond to concerns and grievances of project-affected parties

⁵¹³ Exact amount is USD 1,179,102

⁵¹⁴ FAO's estimate for (a) is based on safeguards document formulation, including related consultations, with support from an international safeguards specialist.

⁵¹⁵ The respective estimates for each agency are: (i) USD 280,000 for UNDP; (ii) USD 145,000 for WFP; and (iii) USD 754,102 for FAO.

⁵¹⁶ FAO's estimate for both (b) and (c) are based on a breakdown of approximately: (i) USD 146,510 for a National Gender (GBV) Specialist; (ii) USD 201,592 for national ESM Specialists; (iii) USD 228,000 for an International ESM Specialist; and (iv) approximately USD 100,000 for travel-related costs and operating expenses related to M&E, trainings, supervision, etc. The overall amount was divided between both budget lines for simplicity and coherence with the breakdown provided by other UN partners.
⁵¹⁷ Idem.

related to the E&S performance of the project/subproject in a timely manner. The GM may include: (a) different ways in which users can submit their grievances, including submission in person, by phone, text messages, mail, email or via a web site; (b) a log where grievances are registered in writing and maintained in a database; (c) publicly advertised procedures, setting out the length of time users can expected to wait for acknowledgement, response, and resolution of their grievances; (d) transparency about the grievance procedures, governing structure, and decision makers; and (e) an appeals process (including the natural judiciary) to which unsatisfied grievances may be referred when resolution of grievance has not been achieved. The project/subject owner may provide mediation as an option where users are not satisfied with the projects resolution. Project/subproject owner must establish and implement a GM to receive and facilitate resolution of such concerns and grievances. Based on ESS 2,518 there must also be a separate GM for direct and contract workers⁵¹⁹, separate from the main GRM, for those workers to raise workplace related concerns. Those workers will be informed of the GRM upon their recruitment, as well as the measures put in place to protect them against any reprisal for its use.

- 361. It is noted that ESS2 prohibits the employment of forced labour and child labour with an age of less than 14 year (the project will not engage anyone under the age of 18) and also requires the application of occupational health and safety (OHS) measures to be designed and implemented to address (a) identification of potential hazards to protect worker, particularly those that may be life threatening; (b) provision of preventive and protective measure, including modification, substitution, or elimination of hazardous conditions or substances; (c) training of project workers and maintenance of training records; (d) documentation and reporting of occupation accidents, diseases and incidents; (e) emergency prevention and preparedness and response arrangement to emergency situation; and (f) remedies for adverse impact such as occupational injuries, death, disabilities, and disease.
- 362. The full overview of the project-level GM can be found in the SEP, and the labourrelated GM within the LMP. The GM for sexual exploitation, abuse, sexual harassment, and/or gender based violence (GBV) is available within the GBV Action Plan (see Annex 4).

Project-Level Grievance Mechanism (GM)

363. **GM Types:** Three Grievance Mechanisms (GMs) (one per UN agency) are available so that project affected persons and other interested persons, local communities, and the public are able to raise issues concerning the project activities. The main G addresses the

⁵¹⁸ Scope of the ESS2 application depends on the type of employment relationship between the project/ subproject owner and the "project workers" which include the "direct workers", the "contracted workers", the "primary supply workers", the "community workers" including full-time, part-time, temporary, seasonal, and migrant workers.

⁵¹⁹ Direct workers are defined as people employed or engaged directly by the project/subproject owners to work specifically in relations to the project/subproject while the contracted workers are people employed or engaged through third parties to perform work related to core functions of the project, regardless of location.

overall project and is detailed below, as well as further in the SEP. The other two GMs include: (i) a GM specific to labour management (available in the Labour Management Plan); and (ii) a GM for issues pertaining gender based violence, to sexual exploitation and abuse/sexual harassment (see Annex 4: GBV Action Plan for further details). All GRMs guarantee: (i) privacy and confidentiality on the part of the aggrieved party; and (ii) a timely and respectful response from project implementers.

- 364. Awareness: As the main purpose of a GM is to identify and resolve complaints in a timely, effective, and efficient manner, project-level GMs are an effective way for people to raise their issues and concerns regarding project activities which affect them either directly or indirectly. The project-level GM will be culturally appropriate, effective, accessible and should be understood and familiar for the affected populations. Given high illiteracy rates, accessibility will include clear images/pictures when needed to convey the process, as well as regular dissemination through consultations/vocal public announcements. The FAO, WFP, UNDP and implementing partners (SFD, PWP) have developed the project-level GM based on (i) inputs and recommendations obtained during project design consultations; and (ii) building on the existing systems already in place (e.g. hotlines, risk management systems). Moreover, prior to and throughout project implementation, they will conduct awareness raising for the affected communities about the presence of the respective GMs and inform them of their rights to file any concerns, complaints and/or issues they may have related to the project. In addition to providing a transparent and credible process for fair, effective, and lasting outcomes/conflict resolution, the GM also builds trust and cooperation as an integral component of broader community consultations which facilitate corrective actions.
- 365. **Management of the GM:** A grievance redress committee will be established at the district level and governorate level to ensure accessibility and transparency of the project's GM. If an effective and functional grievance redress committee already exists at the district or governorate level, then the existing GM will serve as a location point for addressing grievances related to this project; however, this must be accompanied by the provision of appropriate training for the committee members on the project's unique requirements. For reporting purposes, FAO will lead to ensure that complaints received in other governorates/districts (e.g. those under the support of other UN partners or local implementing agencies) are aggregated at the central level, depending upon close collaboration of all implementing partners.
- 366. FAO, WFP, UNDP and its implementing partners may utilize this ESMF chapter as a guideline for the procedure, timing, and actions required by grievance redress committee members. Resources will be allocated to ensure that the GM is fully functioning. Complaints will be recorded and either resolved or referred to the next level up. Quarterly and annual reporting on the GM will occur via the environmental and social implementation performance reports.

367. Existing Systems the project builds upon:

- WFP actively seeks feedback from beneficiaries and non-beneficiaries throughout its programming cycle. A toll-free hotline number (08002020) accessible from telecommunication networks across the country is staffed by both male and female operators that speak the local language. The hotline is operational from Sunday to Thursday between 8 a.m. until 4 p.m. Calls are logged directly into a database and each case is given an automated unique reference code that conceals the caller's personal information. There is daily escalation of calls to the responsible units. Cooperating partners inform the community about the toll-free line (08002020) and posters advertising the toll-free lines are displayed within communities with information written in Arabic.
- The call centre is physically based in the Country Office and reports to the internal Compliance Unit. The call centre/hotline number has been extensively publicized and hence, as per monitoring data, 79% of beneficiaries have knowledge of one or more of WFP's feedback mechanisms. Calls are being followed up systematically by the Area Offices and by the technical team in the Country Office. Outreach is ensured through the distribution of hotline posters and inclusion of the awareness on hotline during training sessions of cooperating partners and counterpart authorities. The follow up mechanism is established and in place in WFP to follow up any reported cases through the hotline immediately. Standard Operating Procedures define the coordinated actions and communication and referrals on reported cases with regards to any WFP programmes, contributing to improved quality and efficiency of WFP's programmes in Yemen.
- UNDP is planning to apply the existing system which was established under the Emergency Crisis Response Project (ECRP) and develop a Third-Party Monitoring (TPM) call centre facility. First, UNDP and its implementation partners will utilize the integrated GRM system, building on the experience and systems developed under the previous project. The SFD, PWP and SMEPS have utilized a wide variety of communication methods for soliciting grievances, including complaint boxes, tollfree phone calls, SMS, WhatsApp, Telegram, Fax, Online Forms, emails, letters, inperson visits to head offices or branch offices or through face-to-face interactions with project staff. Second, the UNDP will develop a parallel GRM system by operating a TPM call centre facility for both inbound and outbound calls from- and to- project beneficiaries and targeted communities via a dedicated hotline toll-free number, and SMS/WhatsApp messages. The system will facilitate answering toll-free calls for all three mobile operators and from fixed/land phone lines.
- 368. To address complaints or concerns related to project activities, UNDP will be managing complaints received under component 1. It will be critical to have good communication on the processes of the GM system, both in terms of beneficiaries' rights and the boundaries of the system. Complaints received by the GM system will be registered, tracked, investigated, and promptly resolved. The proposed project adopts the GM of FAO UNDP and WFP in addition to the SFD, SMEPS and PWP GM. The FAO and

WFP take overall responsibility for managing complaints received through SFD and SMEPS, under components 2, 3, and 4. The FAO will disseminate the hotline number at regional and local levels to increase accountability at those levels to citizens' inquiries. This GM system will include multiple uptake mechanisms (telephone, complaints box, website, email, and text messaging).

- 369. The FAO grievance mechanism (GM) for this project is already in place (in accordance with ESS10) and will be used to capture and address specific concerns in a timely fashion. The project follows the already established FAO, UNDP and PWP in Yemen and SFD, PWP and SMEPS's Grievance Mechanism (GM). All project partners will facilitate the amicable resolution of beneficiaries' concerns of project activities respectively regarding alleged or potential violations of FAO's, UNDP, WFP, PWP, SMEPS and SFD's, but also World Bank Group's ethical, social, environmental, and Gender Based Violence / Sexual Exploitation and Abuse (GBV-SEA) standards and commitments.
- 370. **Grievances under Component 1 (managed by UNDP):** In cases complaints are not resolved by SFD and PWP, they should be escalated to UNDP for further investigation, study, and closure. An overview is provided in **Table 12**. Complaints Handling Mechanisms (HCM) will be applied as follows:
 - IPs GRM will apply, and will activate at three levels of compliant settlement (at 1st field, 2nd branch, 3rd Head Office levels of SFD and PWP).
 - The TPM Call Center will be assigned by UNDP to verify the lists of complaints on monthly basis and provide a report. IPs therefore will need to share GRM list biweekly (perhaps through linking to the new MIS)
 - UNDP will dedicate a number (call, SMS, WhatsApp) for complainants who might not be satisfied with IPs' resolution and would want to escalate to higher level (4th level of HCM).
 - IPs will ensure that the dissatisfied complainants are well-informed to the UNDP's dedicated number. TPM may also assist in this issue, by calling all complainants and refer the dissatisfied ones to the 4th level of UNDP)
 - If still complainant is dissatisfied after UNDP's intervention, another level will be introduced to escalate to UNDP SRM HQ (UNDP Regional office).

Table 12: Summary of GM contacts for UNDP and its implementing partners

UNDP and partners (Component 1)	Address and contact
At SFD and PWP	Field and Branches offices should response within 5 days
At SFD HQ	Contact person: Mr. Mohammed Al-Antari Email: <u>chm_hq@sfd-yemen.org</u> 8009800/772045256 The complaints cases should be mitigated within 14 days and response within 5 days.

UNDP and partners (Component 1)	Address and contact
At PWP HQ	Contact person: Mr. Abdulrahman Sarhan Email: <u>a.sharhan@pwpyemen.org</u> 8002626/77526262 The complaints cases should be mitigated within 14 days and response within 5 days.
At UNDP in Yemen	Nahid Hussein Email: <u>nahid.hussein@undp.org</u> UNDP Safeguard Specialist Email: <u>mey.ahmed@undp.org</u> UNDP M&E Specialist: Email: <u>kazi.hossain@undp.org</u>
At UNDP HQ Office	Call: 001-844-595-5206 Email: project.concerns@undp.org Address: Attn: SECU/SRM, OAI, UNDP 1 U.N. Plaza, 4th Floor, New York, NY USA 10017

- 371. For the components 2,3 and 4, in cases where the grievance cannot be handled at the project level, the PMU will first explore any likely mediation stream at ministerial and/or local administration level prior to upscaling it to the FAO Representation in the country.
- 372. **FAO** has established Grievance Mechanism (GM) for all projects to enable beneficiaries to communicate their concerns regarding the project activities. FAO provides multiple access points to the FAO GM for beneficiaries to voice and raise their concerns. These access points include the GM contact information, which includes a hotline & landline toll-free, mobile SMS, WhatsApp, website, email and offline form, as per **Table 13**.

Project Management Unit	Must respond within 5 working days.
Project Coordination Unit	Any organization may receive a complaint and must provide proof of receipt, inviting the person to have a meeting specifically to document the case. If the case is relevant, the receiver must send the information to all Technical Steering Committee (TSC) members and call for a meeting to deal with the problem. The response must be sent within 5 working days after the meeting of the steering committee.

 Table 13: FAO GM contact details

FAO Representation	Must respond within 5 working days, in consultation with Technical Steering Committee TSC. FAO-YE@fao.org Dr. Hussein Gadain Hussein.Gadain@fao.org Toll-free telephone number and SMS (all mobile companies & landlines): 800 19 19 WhatsApp: 776 01 30 30 Email: Yemen-Feedback@fao.org
Regional FAO Office for Near East and North Africa	Must respond within 5 working days in consultation with FAO's Representation. Serge Nakouzi FAO-RNE@fao.org; RNE-ADG@fao.org; Serge.Nakouzi@fao.org Tel: (202) 3331 6000 to 3331 6007
Office of the Inspector General (OIG)	To report possible fraud and bad behavior by fax, confidential: (+39) 06 570 55550 By e-mail: Investigations-hotline@fao.org By confidential hotline: (+ 39) 06 570 52333

- 373. Accordingly, FAO has established grievance access database to register, follow-up and take action on the complaints. An offline form was also designed to record the field complaints or offline grievances. FAO has a person in charge of the call centre. Grievances can be raised by affected people in case of concerns regarding: (i) beneficiary and community selection; (ii) assistance quantity and quality; (iii) corruption or theft; (iv) staff abuse, etc.
- 374. Also referred to as the "Beneficiary Feedback Mechanism (BFM)", the GRM/BFM details the procedures which communities and/or individuals, who believe they are adversely affected by the project or a specific sub-project, can use to submit their complaints, as well as the procedures used by FAO to systematically register, track, investigate and promptly resolve complaints. The timeframe for managing feedback including giving appropriate response to the complaints raised by beneficiaries will vary based on the nature and magnitude of the reported problem. Feedback will always be reviewed and continuous efforts to improve program will be undertaken, including reduction or prevention of similar occurrences of negative events. The overall procedure for FAO handling of feedback and complaints is as follows:
 - Receipt of a feedback/complaint and its registry in the system, capturing details of the caller and the nature of the feedback;
 - Sharing complaint in a generated report template to the respective staff members for addressing, based on the classification of the complaint (please see the Table 14);

- Resolution within five working days. In case, the issue cannot be solved by the closest appropriate level, the complaint will be sent further, as described in the "Resolution" section below;
- Inform the complainant not later than seven working days after receiving the case; and
- Closure of the complaint.

Table 14: FAO Staff Members to Make Decisions/Take Action

Categories	Туре	Decision-Maker/ Action Taker	Timeframe
Category A. Low Category B.	 Inquiries; Request for assistance; False calls. Operational (late delivery of inputs and construction of the second seco	 Phone Operator Assistant to FAOR/ 	Immediately Review on bi-
Moderate	 services, cash transfer payments, etc.); Out of beneficiaries list; Out of target area (not included in the project); Distribution of less amount than envisaged; Criteria for selection is unclear or not applied; Quality of items and services provided; Overlapping activities in the given area; Dissatisfaction with FAO activities. 	 Programme; Assistant to FAOR/ Operations; Concerned project CTA or staff in charge; M&E Focal Point. 	weekly basis
Category C. Critical	 FAO or its IPs staff misconduct; Corruption; Tax imposition on inputs and beneficiary payments by local authorities; Sexual Exploitation and Abuse; Abuse of authority. 	 FAOR or Deputy FAOR; Assistant to FAOR/ Programme; Assistant to FAOR/ Operations; Others assigned by the FAOR based on the case- sensitivity. 	Immediately communicated to the FAOR/ Deputy FAOR for decision- making

375. Once the complaint is received, the GRM focal point needs to categorize the complaint according to specific criteria, such as the sensitivity, relevance and urgency of the complaint (as shown in the second column of Table 14 above, where some types of complaints are already categorized under each category). Each complaint received is identified and classified under the appropriate category.

376. As FAO will lead the consolidated reporting for grievance management, partnering UN agencies (UNDP, WFP) and other implementing partners are required to maintain records of grievances and complaints, including any minutes of discussions, recommendations, and/or resolutions made. These summaries of recorded complaints must be submitted with their progress reports.

Grievance Redress Mechanism for Workers

- 377. Rights and duties of workers and employers will be managed according to national laws and regulations. The GRM for project workers is detailed within the LMP and reference should be made there to the full procedure/details. The bullets, below, provide a brief summary of the process but should not be considered the full overview the LMP remains the primary point of reference.
 - Rights and duties of all project workers are protected by the national laws and regulations;
 - When violations occur due to the contract owner/employer, the workers/employees may lodge their complains and/or grievance to the project/subproject owners through the following ways: submission in person, by phone, text messages, mail, email or via a web site. The complainants should provide adequate information on the cases as much as possible including identify specific regulations that are likely to be violated;
 - The project/subproject owners will register the complaint/grievance (in a log book) and respond to the complainant in writing within seven days after receiving the complaint. The project/subproject owner will take actions within 15 days after receiving the complaint/grievance and maintain all information in a GRM database. Resolution should be achieved within 30 days after receiving the complaint/grievance;
 - If the two parties could not agree or the grievance could not be solved, they
 have the right to file the grievance/complaint to the implementing agencies
 responsible for addressing the issues and follow the implementing agencies'
 settlement processes.
 - The project/subproject owner will inform the WB of the complaint/grievance through the E&S monitoring report. However, for serious cases, the issue will be raised to the WB within 48 hours after receiving the compliant/grievance.
- 378. The GRM is an integral project management element that intends to seek feedback from beneficiaries and resolve of complaints on project activities and performance. The GRMs for the project are based on World Bank and UN requirements and, most importantly, national requirements for solving potential problems between project owners and local residents/persons affected by the subproject(s).

XI. ESMF CONSULTATION AND DISCLOSURE

11.1 Consultation Requirements

- 379. The WB requires that consultations be held with the project affected peoples, local communities, and other relevant stakeholders. The consultations should provide information on the following aspects: a) purpose of the project; b) results of the environmental and social evaluation; and c) presentation of the complementary studies required, in any instances where they apply. This ESMF and all the related safeguards documents have been prepared based on a consultative process at both the central and field levels, albeit with limitations due to COVID-19 restrictions. Given the emergency nature of the project and the unique requirements under emergency circumstances, initial consultations were held at central level, whilst field-level feedback relied on a blend of prior consultations done in overlapping project areas for similar activities of ongoing projects, and post-appraisal consultations with selected communities.
- 380. Consultation and community outreach all throughout project implementation is considered good practice to ensure that the potential adverse impacts and concerns are properly addressed during project construction and operations. Consultation with affected populations is always required when the activities involve physical or economic displacement and/or vulnerable populations (elderly, women, ethnic minorities, youth). Consultation requirements are detailed in the project's Stakeholder Engagement Plan.

11.2 Consultation Process Summary

- 381. Public consultation is a key component of the project and has been pivotal in the preparation of the following documents:
 - Environmental and Social Commitment Plan (ESCP);
 - Stakeholder Engagement Plan (SEP);
 - Environmental and Social Management Framework (ESMF);
 - Pest & Pesticide Management Plan (PMP);
 - Resettlement Framework (RF); and
 - Labor Management Procedures (LMP).
- 382. Preliminary consultations were focused on:
 - Obtaining baseline information to better understand potential risks/impacts;
 - Informing people in the project area, including potentially affected households, of project's potential impacts;
 - **4** Reflecting feedback in the safeguards instruments, where necessary.
- 383. Further public consultations with key stakeholders on this ESMF will be held once the document has been translated into Arabic, particularly during the project's inception workshop (tentatively scheduled for late 2021). Once the translation is finalized, the implementing agencies will: (i) conduct public consultations about this ESMF; and (ii) summarize the results of those consultations, including participants, date, venue, discussed points, the views of consulted groups, and the feedback of the project preparation team. As the safeguards documents are considered "living" documents, the implementing agencies will then append the latest results and findings of those consultations to this project's SEP.

11.3 Initial Public Consultation Results

384. The results of social consultations are summarized within the Stakeholder Engagement Plan.

11.4 Information Disclosure

385. According to the World Bank's policy on access to information and ESS10 (Stakeholder Engagement and Information Disclosure), all draft and final safeguard instruments, including the ESMF, ESCP, SEP, LMP, and RF (etc.) have been disclosed locally in an accessible place and in a form and language understandable to key stakeholders. Executive summaries of all safeguard documents are available in both Arabic and English on the website of FAO/UNDP/implementing partners, the external government website, and the World Bank website.

ANNEX 1: FULL LEGAL REVIEW & GAPS ANALYSIS

The following legal review and gaps analysis was prepared by Dr. Fadhl Al-Nozaily in February 2021 for both this project and the Yemen Desert Locust Project. National laws are organized in relation to the Environmental and Social Standard to which they apply.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
ESS1. Environmental Assessment		
Identify, evaluate and manage the	Yemen Constitution Actricle 35:	No Gap. National requirements and
environment and social risks and	Environmental protection is the collective responsibility of the state and the	ESF objectives are aligned, and
impacts of the project in a manner	community at large. Each individual shall have a religious and national duty to	complement each other. FAO will
consistent with the ESSs.	protect the environment	apply both the ESF and the national
		requirements
	<u>EPL 26/1995</u> : required Registration of pesticides to enforce t he	
	measures and formalities to be adopted by the concerned authorities	
	before granting the approval of pesticides handling and after its inspection	
	of its specifications and compositions to ensure that it is harmless to	
	human health and that it is environmentally safe and sound in the following	
	related articles:	
	Article (15) It is not permissible to handle pesticides without a license from	
	the competent body and in accordance with the prevailing laws.	
	Article (16) The competent body shall, in coordination with the Council	
	shall propose the regulations that define and control the following issues: 1-	
	The types of pesticides for plant pests and other types of pesticides and	
	chemicals that it is permissible to handle and determination of its	
	specifications and their handling conditions. 2- Conditions and procedures	
	the pesticides handling licenses and their import permissions. 3- Procedures	
	for pesticides registration and re-registration. 4- The method of selection	
	samples of pesticides and its analysis and the means of challenging and	
	objecting results of the analysis. 5- The method of the disposal of the	
	expired pesticides and empty bottles and packages.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	 Article (17) In cause that approval for registration of any pesticide is granted, the period of registration of such pesticide shall be determined for five years period and may be re-registered or cancelled as the competent body deems it necessary. Article (18) The competent body shall stipulate the pesticides specifications and its handling conditions with the coordination of the, council and they shall take into consideration the specifications and conditions that are issued by the WHO and FAO and Arab organization for industrial development. Article (19) 1- The warehouses and storage places of pesticides must be far away from the populated areas or the commercial zones Environment Protection Law 16 or animal sheds or factories and storage of food stuffs, beverages and juices. It must be well-ventilated and satisfies the health, safety and technical requirements and conditions or any other requirements to be specified and determined by the competent body. 	
	Pesticide Law no 25 for the year 1999 concerning the regulation of handling pesticides for plant pests in Chapter two general objectives Article (3) This law aims to:	
	 A. Regulate the operations of handling g of pesticides for plant pests. B. Regulate the procedures of the registration, monitoring and as well as inspection and handling of agricultural pesticides. 	
	C. Avoid the risks of pesticides and the poisonous effects thereof to human and animal health as well as the environment, and to protect the natural enemies of pests and economically beneficial insects.	
To promote improved environmental and social performance, in ways which recognize and enhance Borrower capacity.	Included in the Environmental Protection Law No. 26/1995.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements

Yemen Applicable National Laws	Gaps/ Recommended Action
Law no 25 for the year 1999 – see above Law no 26 for the year 1995 Article (4): 1- Human being is an important and influential part in the natural environment in which he lives and utilizes its resources. 2- Every individual has the basic right to live in a healthy and balanced environment that concurs and complies with the human being integrity which ensure intellectual, mental, physical and healthy growth, whereby each person natural and juridical adheres to and abides to the - protection of the environment and its natural resources and to prevent the damage to the environment and pollution control.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
Included in the EPL (26/1995)	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
Pesticide Law no 25 of 1999: Article 23-C: The competent authority has the right to adopt the following measures: Any person handling with pesticides in the Republic is obliged to refill any leaking pesticide - container and to clean contaminated areas and to pay financial compensation under the supervision of the competent authority. EPL- Article 4, 9: Anyone who damages the environment shall be responsible for all the costs and expenses arising out of removing the damage in addition to the compensation for it.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
	Law no 25 for the year 1999 – see above Law no 26 for the year 1995 Article (4): 1- Human being is an important and influential part in the natural environment in which he lives and utilizes its resources. 2- Every individual has the basic right to live in a healthy and balanced environment that concurs and complies with the human being integrity which ensure intellectual, mental, physical and healthy growth, whereby each person natural and juridical adheres to and abides to the - protection of the environment and its natural resources and to prevent the damage to the environment and pollution control. Included in the EPL (26/1995) Pesticide Law no 25 of 1999: Article 23-C: The competent authority has the right to adopt the following measures: Any person handling with pesticides in the Republic is obliged to refill any leaking pesticide - container and to clean contaminated areas and to pay financial compensation under the supervision of the competent authority. EPL- Article 4, 9: Anyone who damages the environment shall be responsible for all the costs and expenses arising out of removing the

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
To promote safety and health at work.	Labor Law Number 5/1995Article 113 An employer who commissions any new enterprise shall ensure that it meets occupational safety and health requirements. The competent Ministry shall ensure compliance with appropriate occupational safety and health requirements and conditions.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
	Article 114: Employers shall observe the following rules: 1. Workplace health and safety conditions shall be maintained in conformity with occupational safety and health requirements.	
	2. Workplaces shall be properly ventilated and adequately lighted during working hours in accordance with the standards established by the authorities responsible for occupational safety and health.	
	3. The necessary precautions shall be taken to protect workers from such damage to their health as may be caused by gas, dust, smoke or any other emissions or waste likely to be discharged by the industry.	
	4. The necessary precautions shall be taken to protect workers against the hazards of equipment and machinery and the hazards of conveyors and handling, including any risks of collapse.	
	5. The necessary precautions shall be taken against natural hazards and damage, including health, humidity and cold.	
	6. The necessary precautions shall be taken against the hazards of excessive light, noise, harmful or dangerous radiation, vibration, variation in atmospheric pressure inside the workplace, including any risk of explosion.	
	7. Easily accessible lavatories and wash-rooms shall be provided, and separate lavatories and wash-rooms shall be provided for women workers if women are employed on the premises.	
	8. An adequate and easily accessible supply of drinking water shall be	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	provided for the worker's use.	
	9. The necessary precautions shall be taken to deal with fires and provide fire-fighting equipment, including emergency exits, which shall be maintained in working order at all times.	
	10. Industrial accidents and occupational diseases shall be recorded in a register and notified to the competent authorities and statistics on industrial accidents and occupational diseases shall be kept for submission to the Ministry upon request.	
	Article 115 : Employers shall take the necessary precautions to protect workers and ensure their safety against such hazards as may arise from their work and the machinery in use. The employer shall not deduct any amount from their wages in consideration of:	
	(a) the provision of protective devices, equipment and clothing to protect workers from exposure to occupational injuries and diseases;	
	(b) any allowances granted to workers for working in conditions harmful to their health, or any meals provided to them in compliance with occupational safety and health requirements.	
	(c) expenses incurred on account of workers' medical examinations, regular or otherwise, as necessitated by occupational safety and health requirements;	
	(d) the provision of first aid equipment at the workplace.	
	Article 116: The Ministry shall:	
	(a) give advice to employers in matters relating to occupational safety;	
	(b) organize and implement training and educational programmes on the prevention of accidents;	
	(c) organize the exchange of technical information and expertise between enterprises' occupational safety and health departments;	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	(d) specify and evaluate the means of accident prevention units;	
	(e) assist in the design of explanatory materials relating to occupational safety;	
	(f) study and analyze data and information relating to occupational safety, monitor cases of occupational injury and disease and suggest measures to avoid their recurrence;	
	(g) specify and evaluate means and equipment for protection against industrial accidents and injuries.	
	Article 117:	
	1. A High Committee for Occupational safety and health, whose membership shall include representatives of the parties concerned, shall be established by order of the Council of Ministers acting on a recommendation of the Minister. The said order shall specify its functions and rules of procedure.	
	2. Subsidiary occupational safety and health committees may be established by orders of the Minister in such governorates, sectors and industries as he sees fit, provided that the membership of such subsidiary committees shall include representatives of the parties concerned. Such orders shall specify the committees' functions, competence and rules of procedure.	
	Article 118:	
	1. The employer shall:(a) advise and inform workers, before their engagement, on work-related and occupational hazards and on the preventive procedures which must be observed at work;	
	(b) provide continuous guidance to workers and control their observance of occupational safety and health;	
	(c) display in a visible place instructions, guidance and posters explaining work-related and occupational hazards and methods of preventing them	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	and use all possible illustrative means to that end;	
	(d) increase worker's awareness of occupational safety and health protection and make them participate in training courses and seminars on these matters.	
	2. Where an employer fails to apply labour and worker protection rules and occupational safety instructions, the inspector may obtain an order from the Minister to stop the functioning of the machinery which is the source of danger for one week, until the causes of danger are eliminated. Where the danger persists and the employer fails to take remedial action and the period of partial stoppage is extended, or if a request for total stoppage is submitted, the Minister shall refer the matter to the competent Arbitration Committee. Workers who are suspended as a result of this procedure shall be entitled to their full wages	
	Law Number 25/2003	
	address Occupational Health and Safety and work environment in Articles 113 to 118. Chapter 10 covers worker's insurance.	
	Employers are required to provide necessary occupational safety and health conditions, including: protection from emissions (gas, dust, etc) hazards; protection from machine accidents and hazards; provision of appropriate personal protection equipment; fair compensation; access to periodic medical examinations; availability of first aid. The competent authority shall ensure the availability of the appropriate work environment and conditions for occupational safety and health. The Ministry of Labor is charged with advising employers in the field of occupational health and safety; organize and implement accident prevention training programs; exchange of technical information; identify and evaluate the means of accident prevention measures; etc.	
	The Minister may establish sub-committees for occupational health and safety in the governorates and in the sectors and industries, which include the relevant bodies. The composition decision shall determine the	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	functions of these committees, their terms of reference and the rules governing their work.	
	Where employers fail to implement labor protection and labor safety regulations, they could receive a one week stop order from the Minister, until the reasons for the breach are explained. The Minister must refer the matter to the competent arbitration committee if the partial suspension is extended or if a total suspension is requested. If the risk is still not removed by the employer, the workers who have stopped working are entitled to full wages.	
To promote the fair treatment, non- discrimination and equal opportunity of project workers.	Yemen Labor Law Number (5/1995) Article 42: Women shall be equal with men in relation to all conditions of employment and employment rights, duties and relationships, without any discrimination. Women shall also be equal with men in employment, promotion, wages, training and rehabilitation and social insurance. The requirements of job or occupational specifications shall not be considered as discrimination.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
	The Labor Law regulates the rights and wages of workers, their protection, occupational health and safety. In addition, the Social Insurance Law regulates retirement compensation.	
	Yemen amendments Labor Law No. 25 of 1997:	
	Makes numerous amendments to provisions of the Labor Code (No. 5 of 1995) regarding the drawing up of collective agreements, termination of contracts, the determination of wages, disciplinary measures against workers, and penalties. Removes from s. 33 a provision for legal proceedings by trade unions for breaches of collective agreements. Requires employers to remove from an employee's file any disciplinary sanction if the worker's conduct improves (s. 95). Repeals s. 48 (hours of work of young persons) and s. 155 (penalties).	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and	Yemen Labor Law Number (5/1995) Article 5 Work is a natural right of every citizen and a duty for everyone who is capable of working, on the basis of equal conditions, opportunities, guarantees and rights without discrimination on grounds of sex, age, race, colour, beliefs or language. The State shall, as far as possible, regulate the right to access to work through development planning of the national economy.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
primary supply workers, as appropriate.	Yemen Labor Law Number (5/1995) Article 15 Employers shall, according to their resources and available opportunities, employ disabled persons nominated by the Ministry or its branch offices up to a proportion of 5 per cent of their total workforce in jobs and professions suited to their capabilities and potential so as to ensure that they enjoy all the rights provided for in this Code.	
	Yemen Labor Law Number (5/1995) Article 44 It shall be forbidden to assign a woman to overtime work as from the sixth month of her pregnancy and during the first six months following her return to work after maternity leave.	
To prevent the use of all forms of forced labor and child labor. the minimum B17 of GN state: "the age for employment or engagement in connection with the project, which will be the age of 14 unless national law specifies a higher age"	<u>Yemen Constitution, Article no 29</u> , Article (29): Work is a right, an honor, and a necessity for society's progress. Every citizen has the right to choose the appropriate work for himself within the law. No citizen can be compelled to do any work except within the law, and in which case it is to serve the common interest and be in return for a fair wage. The law shall regulate union activities and professional work, and the relationship between workers and employers.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
	Yemen Labor Law Number 5/1995, Article 7 regarding forced labor:	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	Employment relationships shall conform to the provisions of this Code on the following basis:	
	1. It shall be forbidden to impair or avoid any workers' rights under a contract of employment in violation of the provisions of this Code.	
	2. The conditions of employment and rights specified in this Code shall apply to workers subject to such more favourable conditions as may be contained in their contract of employment.	
	3. All employment contracts in force at the time of promulgation of this Code shall remain valid provided that they are more favourable for workers and their renewal does not imply any deterioration of the conditions of employment and rights of workers, even where they are not less than the minimum standard of conditions of employment prescribed in this Code.	
	Yemen Labor Law Number 5 /1995, Article 13 regarding Child Labor	
	1. Any person able and willing to work may apply for registration with the Ministry or one of its offices in the district of his residence, indicating his age, occupation, qualifications, previous experience and address. The authority to which the application is submitted shall register it in a special register in numerical sequence as soon as it is received and shall issue the applicant with a receipt indicating the date and time of the application as well as the corresponding registration number and any other necessary information.	
	2. The Ministry and its offices shall propose the candidature of persons registered with them for jobs suited to their age and occupational skills taking account of the sequential order of applications.	
	Yemen has ratified ILO Convention Number 138 on Minimum Age for Admission to Employment (Law 7/2001). ??????	
	Yemen has ratified the ILO Convention 182 on the Worst Forms of Child Labor. It refers to child labor as work that is mentally, physically, socially or	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	morally dangerous and harmful to children; and interferes with their schooling by depriving them of the opportunity to attend school, by obliging them to leave school prematurely; or by requiring them to attempt to combine school attendance with excessively long and heavy work. Drawing a line between "acceptable" forms of work by children and child labor can prove difficult, as it depends on the child's age, the types of work performed, the conditions under which it is performed.	
To support the principles of freedom of	Constitution Article (58):	No Gap. National requirements and
association and collective bargaining of project workers in a manner consistent with national law.	In as much as it is not contrary to the Constitution, the citizens may organize themselves along political, professional and union lines. They have the right to form associations in scientific, cultural, social and national unions in a way that serves the goals of the Constitution. The state shall guarantee these rights, and shall take the necessary measures to enable citizens to exercise them. The state shall guarantee freedom for the political, trade, cultural, scientific and social organizations.	ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
	<u>Yemen Labor Law (5/1995):</u>	
	Article 151	
	1. Workers and employers shall have the right freely to establish and join organizations with the aim of protecting their interests, defending their rights and representing them on bodies, councils and meetings and in all matters concerning them.	
	2. Trade unions and employers' organizations shall have the right to carry on their activity in total freedom, without any interference in their affairs or outside influences.	
	Article 152,	
	Subject to the provisions of article 35 of this Code, workers' representatives on a trade union committee shall not be dismissed or otherwise disciplined for carrying out their trade union activities in	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	accordance with this Code, the Trade Unions Act and the rules and regulations made thereunder.	
	Law for the Organization of Workers' Unions (35/2002) Article 3:	
	This article aims to achieve the following:	
	(a) Defending the rights and earnings of workers and their trade union movement and taking care of their common interests, working to raise their social, economic, cultural and health levels.	
	(b) To ensure full and complete expression and freedom of trade union activity without interfering in its affairs or influencing it in accordance with this law.	
	(c) Organizing trade union activities and confirming their role in building and developing Yemeni society.	
	(d) Developing the relationship between members and their various trade union organizations and between the members themselves.	
	(e) Establishing the spirit of respecting and adhering to labor regulations and working to achieve the actual interdependence of labor relations and increasing production.	
	(f) Attention to the issues of vocational training, apprenticeship, literacy for workers, care for the working environment and working conditions of juveniles, and work to reduce the phenomenon of child labor and protect their rights to work, care and care for disabled workers.	
	(g) Establishing and strengthening the free and direct democratic and electoral practice of all trade union organizations and organizations and their compositions.	
	(h) Strengthening cooperation and coordination between trade union organizations and strengthening the spirit of solidarity among them.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	(i) Establishing and managing cultural, scientific, social, cooperative, health, development and recreational institutions and centers for workers.	
To provide project workers with accessible means to raise workplace concerns.	 Yemen Labor Law (5/1995): Articles 129, 1. Both parties to a dispute or their representatives shall hold a meeting to settle the dispute amicably through negotiation with a maximum period of one month. A record of the meeting to be kept secret shall be drawn up and signed by both parties. 2. Where no amicable settlement can be reached between the two parties to the dispute, the matter shall be referred to the Ministry or its competent office which shall summon the parties with a view to settling the dispute within a period not exceeding two weeks as from the date of referral. Article 130 Where mediation fails to resolve the subject of the dispute finally, either party may submit it to the competent Arbitration Committee within a maximum period of two weeks from the date of the minutes recording the failure of mediation. Article 132 The Arbitration Committees shall be competent to examine: (a) such disputes and conflicts as may arise between employers and workers in connection with the application of this Code, rules and regulations made thereunder, contracts of employment, and collective agreements; (b) violations referred to them in connection with workplace inspection; (c) any other matters in respect of which the relevant laws provide that they fall within the competence of the Arbitration Committees. Article 136. Article 136. All cases concerning labor disputes of any type shall be submitted to an Arbitration Committee. 	No Major Gap between ESF and National requirements. However, FAO will apply ESF as a precautionary measure with regards to the application of GRM.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	2. The cases submitted shall be signed by one of the parties to the dispute or his legal representative.	
	3. The submission of a case and litigation procedures shall be subject to the provisions of the Litigation Act in all matters not covered by a special provision of this Code.	
	4. Cases concerned with labor matters shall be considered urgent.	
	5. Labor cases shall be irreceivable after the expiry of the time-limit specified in the laws in force.	
	Article 97:	
	1. In investigating an offence, the employer shall:	
	(a) conduct the investigation within a period not exceeding 15 days as from the date of his discovering the offence;	
	(b) complete the investigation and where the worker's responsibility is established, apply the penalty within a period not exceeding one month;	
	(c) hear the worker, his self-defence and the testimony of any witnesses he may call upon for his defence;	
	(d) commit the investigation to writing and have it signed by all the parties thereto;	
	(e) hear any workers who are aware of the circumstances of the offence.	
	2. The worker may appeal against the findings of the investigation or its consequences before the competent Arbitration Committee within a period not exceeding one month as from the date of his notification of the findings of the investigation.	
No equivalent in ESS2	Yemen Labor Law Number 5/1995,	There is a Gap. ESF does not
	To provide every employee with written particulars of employment	require the employer to provide
	Article 27	particulates of employment. FAO

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	A contract of employment is an agreement between an employer and a	will apply the national
	worker to lay down terms of employment, whereby the worker undertakes	requirements
	to work under the direction and supervision of the employer in	
	consideration of a remuneration.	
	Article 28	
	Upon signing a contract of employment a worker may be subject to a	
	probationary period not exceeding six months with the same employer, to	
	be stipulated in the contract. It shall be forbidden to employ a worker on	
	probation more than once for the same job.	
	Article 29	
	1. The duration of a Yemeni worker's contract shall be considered unlimited unless otherwise specified by agreement between the two parties.	
	2. A contract of employment which expires shall be considered valid for the	
	same duration as that initially provided for if the employment relationship	
	between the two parties effectively continues.	
	3. The service of a worker shall be considered continuous throughout the	
	validity of his contract of employment, without its continuity being broken by statutory leave, with or without pay, or by any other contingency	
	provided for in this Code.	
	Article 30	
	1. A written individual contract of employment shall be drawn up in three	
	copies, the original being given to the worker, a copy to the employer and a	
	copy to the competent office of the Ministry. All copies shall be signed by	
	both parties. In the absence of a written contract, it shall be up to the	
	worker to establish his rights by any admissible evidence.	
	2. A contract of employment shall basically specify the amount of	
	remuneration, the type of work, the place of work and the date of	
	commencement and duration of employment.	
	3. A worker may request his employer to provide him with a receipt for any	
	documents, records or certificates entrusted to him.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	4. Contracts relating to work in cooperatives shall be considered contracts	
	of employment and each worker shall receive a copy thereof as soon as he	
	begins work.	
	5. The procedures followed by an employer to apply the terms of a contract	
	shall be established in writing and a copy of such procedure shall be issued	
	to each worker.	
	Article 31	
	1. In the event of a change of employer for any reason whatsoever before	
	the expiry of the contract of employment, the person succeeding the	
	original employer shall be considered responsible for the performance of	
	such obligations as may arise out of the contract of employment unless otherwise agreed.	
	2. Where a contract of employment is concluded by a subcontractor, the	
	principal employer shall be jointly liable for the performance of all such	
	obligations as may arise out of the contract of employment if circumstances	
	prevent the subcontractor from performing them.	
	Article 32	
	1. A collective agreement (collective contract of employment) shall be drawn	
	up in writing in accordance with the model established by the Ministry and shall include the basic terms related to conditions of work, undertakings	
	concerning wages and the procedure for their payment, hours of work and	
	rest, financial incentives, conditions regarding protection of employment,	
	specifications of the occupation covered by the agreement and any other	
	terms on which the employer and the trade union committee or workers'	
	representatives agree in accordance with the legislation in force.	
	2. The union committee or workers' representatives shall collectively discuss,	
	agree upon and sign the draft collective agreement at a general meeting of	
	the workers and on their behalf. Such agreement shall be binding upon all	
	the workers. Any collective agreement not collectively discussed with the	
	workers shall be invalid.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	3. The provisions of a collective agreement shall apply to the workers in the	
	service of the employer after the entry into force of the agreement.	
	4.	
	(a) It shall be forbidden to conclude an individual contract of employment	
	with terms at variance with those of a collective agreement in respect of	
	work covered by the said collective agreement.	
	(b) The provisions of this article shall be without effect on individual	
	contracts of employment concluded while a collective agreement is in force	
	provided that the terms of employment provided for in such individual	
	contracts of employment shall not be less favourable than those provided	
	for in the collective agreement and provided that their duration does not exceed that specified for the completion of work in respect of temporary	
	jobs not covered by the collective agreement.	
	5. The union committee or the workers' representatives shall submit to a	
	general meeting of the workers any amendments or additions which the	
	employer proposes to enter in or add to a collective agreement.	
	6. Any term of a collective agreement likely to cause a breach of security or	
	to damage the economic interests of the country or yet to come into	
	conflict with the laws and regulations in force or with public policy or public	
	morals shall be invalid.	
	Article 33	
	1. Employers and the union committees or general union representing	
	workers in more than one workplace may conclude a common collective	
	agreement.	
	2. Employers and union committees that are not parties to such agreement	
	may accede to it independently on the basis of a written agreement	
	between the two parties requesting accession, without needing the consent	
	of the original contracting parties. The application for accession shall be	
	submitted to the competent office of the Ministry after signature by the two	
	parties requesting accession.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	 3. Any trade union organization which is a party to a collective agreement may institute legal proceedings for a violation of the agreement on behalf of any of its members without needing to be mandated by him for that purpose. A union member may intervene in a suit thus filed on his behalf and may institute proceedings independently from the trade union. Article 34 1. A collective agreement shall be concluded in sufficient copies to provide one for each of the contracting parties and one for the Ministry. The workers may obtain a copy of such agreement and a copy of any documents concerning accession thereto. 2. A collective agreement shall not be binding unless it is reviewed and registered by the Ministry or its competent office. In the event of an objection to the agreement, the Ministry shall notify the parties concerned of the reasons for its objection within 30 days of the date of receipt of the agreement shall be considered valid. Any of the parties to the agreement may appeal against an objection before the competent Arbitration Committee within 30 days of the date of the objection. 3. The Ministry or its competent office shall record in the register of collective agreements, any amendment, supplement, renewal, termination or expiry concerning collective agreements. 4. Any person shall have the right to obtain from the Ministry or its competent office an authentic copy of a collective agreement and documents of accession thereto against payment of the prescribed fees. 	
ESS3. Resource Efficiency and Polluti	on Prevention and Management	
To promote the sustainable use of resources, including energy, water and raw materials.	EPL 26 of 1995, Article (3) This law shall aim to fulfill the following objectives: 1- The protection of the environment and the conservation of its	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	safety and balance and the maintenance of its natural	will apply both the ESF and the
	ecosystems.	national requirements
	2- Combating all types of pollution arid to avoid any damages or	
	negative impacts, direct or indirect of long term or immediate	
	resulting from implementation of economic, agricultural, industrial, construction development programs or others of development programs which aim to improve the standard of living and to increase its welfare.	
	3- The protection of the natural resources and its development,	
	and the conservation of the species and kinds of life in the	
	national environment and the rational utilization and	
	exploitation for the benefit of the present and future	
	generations.	
	4- Protection of the society and health of the human being and	
	other living organisms from all environmentally damaging	
	activities and acts or that which interfere with or. obstruct the	
	fair and justifiable us and enjoyment of natural environment.	
	5- Protection of the national environment from the damaging	
	effects due to activities performed out off the national territory	
	and its territorial waters.	
	6- The implementation of the international obligations which	
	relate to the protection of the environment and combating	
	pollution and the conservation of the natural resources that	
	Yemen ratifies in accordance with the prevailing legislations.	
	7- The contribution through the measures provided for and	
	stipulated in the rules of this law in protecting the elements of	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	the international environment including the ozone layer and	
	the climate.	
To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities.	Law no 25 of 1999 Article 23: The competent authority has the right to adopt the following measures: Any person handling with pesticides in the Republic is obliged to refill any leaking pesticide -container and to clean contaminated areas and to pay financial compensation under the supervision of the competent authority	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
To avoid or minimize project-related	EPL,26 of 1995	
emissions of short and long-lived climate pollutants	<u>Article 90):</u>	
climate pollutants	Yemeni Law encourages related sectors and projects to provide institutional capacity and training for projects to enhance their capacity and knowledge in handling environmental issues. It also encourages research and development in all environmental aspects	
	Article (3) This law shall aim to fulfill the following objectives:	
	1- The protection of the environment and the conservation of its safety and balance and the maintenance of its natural ecosystems.	
	2- Combating all types of pollution arid to avoid any damages or	
	negative impacts, direct or indirect of long term or immediate resulting from implementation of economic, agricultural,	
	industrial, construction development programs or others of	
	development programs which aim to improve the standard of	
	living and to increase its welfare.	
	3- The protection of the natural resources and its development,	
	and the conservation of the species and kinds of life in the	
	national environment and the rational utilization and	
	exploitation for the benefit of the present and future	
	generations.	

Yemen Applicable National Laws	Gaps/ Recommended Action
4- Protection of the society and health of the human being and	
other living organisms from all environmentally damaging	
activities and acts or that which interfere with or. obstruct the	
fair and justifiable us and enjoyment of natural environment.	
5- Protection of the national environment from the damaging	
effects due to activities performed out off the national territory	
and its territorial waters.	
6- The implementation of the international obligations which	
relate to the protection of the environment and combating	
pollution and the conservation of the natural resources that	
Yemen ratifies in accordance with the prevailing legislations.	
7- The contribution through the measures provided for and	
stipulated in the rules of this law in protecting the elements of	
the international environment including the ozone layer and	
the climate. and is a Yemeni commitment under the Climate Change	
Convention.	
EPL (26/1995),	No Gap. National requirements
Article (44):	and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements
1- It is prohibited, without a prior permission from the competent body, to	
handle toxic or hazardous materials or that which may be toxic or hazardous.	
2- The council shall, with the consultation of the concerned body and the	
toxic and hazardous materials list. A decree by the cabinet shall be issued to	
prohibit the handling of these materials.	
3- The council shall, with the consultation of the parties referred to in paragraph	
	 4- Protection of the society and health of the human being and other living organisms from all environmentally damaging activities and acts or that which interfere with or. obstruct the fair and justifiable us and enjoyment of natural environment. 5- Protection of the national environment from the damaging effects due to activities performed out off the national territory and its territorial waters. 6- The implementation of the international obligations which relate to the protection of the environment and combating pollution and the conservation of the natural resources that Yemen ratifies in accordance with the prevailing legislations. 7- The contribution through the measures provided for and stipulated in the rules of this law in protecting the elements of the international environment including the ozone layer and the climate. and is a Yemeni commitment under the Climate Change Convention. EPL (26/1995). Article (44): 1- It is prohibited, without a prior permission from the competent body, to handle toxic or hazardous materials or that which may be toxic or hazardous. 2- The council shall, with the consultation of the concerned body and the scientific specialized-bodies, prepare a list of toxic and hazardous materials or those material which are probable to be as such. This list shall be issued to prohibit the handling of these materials.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	or up-date the list referred to. in accordance with the scientific and technical progress in this field. The amendments shall be issued by a decree from the cabinet.	
	4- In the determination of the materials to be contained in the list, assistance of any national or foreign experience may be sought as well as to make use and benefit of the lists which are issued by the international governmental and nongovernmental organizations that are related to these toxic materials.	
	<u>Article (50) 1</u> -	
	It is prohibited for any natural or juridical person or any other party to dispose or discharge in the environment any toxic or hazardous materials or products that are probable to be as such and to take all necessary measures and precautions to prevent any risk of such disposal and discharge or to reduce the risk arising out of it in relation to and in connection with the environment or to human health or to the other living organisms.	
	Article (53)	
	It shall be absolutely prohibited for any public or private party or any natural or juridical person to import, enter, dump, bury or store toxic, radioactive and hazardous wastes or the disposal of it by any means in the Yemeni environment.	
To minimize and manage the risks and	Pesticide Law (25/1999), Article (3) This law aims to:	Although No Gap between ESF
impacts associated with pesticide use	A. Regulate the operations of handlin g of pesticides for plant pests.B. Regulate the procedures of the registration,monitoring and as well as inspection and	and National Laws. National Law requirements will prevail. FAO will apply the national requirements
	handling of agricultural pesticides.	
	C. Avoid the risks of pesticides and the poisonous effects thereof to human and animal health as well as the environment, and to protect the natural enemies of pests and economically beneficial insects.	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
ESS4. Community Health and Safety		
To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances.	 EPL 26 of 1995: Article 3 This law shall aim to fulfill the following objectives: 1- The protection of the environment and the conservation of its safety and balance and the maintenance of its natural ecosystems. 2- Combating all types of pollution arid to avoid any damages or negative impacts, direct or indirect of long term or immediate resulting from implementation of economic, agricultural, industrial, construction development programs or others of development programs which aim to improve the standard of living and to increase its welfare. 3- The protection of the natural resources and its development, and the conservation of the species and kinds of life in the national environment and the rational utilization and exploitation for the benefit of the present and future generations. 4- Protection of the society and health of the human being and other living organisms from all environmentally damaging activities and acts or that which interfere with or. obstruct the fair and justifiable us and enjoyment of natural environment. 5- Protection of the national environment from the damaging 	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	effects due to activities performed out off the national territory	
	and its territorial waters.	
	6- The implementation of the international obligations which	
	relate to the protection of the environment and combating	
	pollution and the conservation of the natural resources that	
	Yemen ratifies in accordance with the prevailing legislations.	
	7- The contribution through the measures provided for and	
	stipulated in the rules of this law in protecting the elements of	
	the international environment including the ozone layer and	
	the climate.	
	Article 4:	
	For the purpose of fulfilling the above mentioned objectives as	
	mentioned in the previous article, the concerned bodies shall	
	undertake its responsibilities and functions and perform its duties in	
	accordance with the assigned jurisdictions for the implementation in	
	accordance to the following basis:	
	1- Human being is an important and influential part in the	
	natural environment in which he lives and utilizes its	
	resources.	
	2- Every individual has the basic right to live in a healthy and	
	balanced environment that concurs and complies with the	
	human being integrity which ensure intellectual, mental,	
	physical and healthy growth, whereby each person natural	
	and juridical adheres to and abides to the - protection of the environment and its natural resources and to prevent the	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	damage to the environment and pollution control.	
	3- The official authorities, public and private institutions as well	
	as the individuals shall be responsible for the I protection of -	
	the environment and it natural resources and pollution control	
	and the conservation of wild life and marine ecosystem.	
	4- The Yemeni Environment Comprises the land areas and the	
	internal and maritime waters and its seabed and subsoil and	
	the atmosphere above it of the air which the Republic of	
	Yemen has jurisdiction in accordance with the rules of the	
	public international law and the UN convention on the law of	
	the sea of 1982, and any other international convention	
	which is to be ratified by the Yemen for the purpose of the	
	protection of the marine environment. The state authorities	
	shall enjoy and perform the jurisdiction provided for in the UN	
	convention on the law of the sea for the protection of the	
	marine environment under the state sovereignty as well as	
	the areas within the exclusive economic zone (EEZ).	
	5- The official authorities and public and private institutions,	
	whether national or foreign as well as individuals shall	
	comply and abide when performing any activity or action of	
	whatever nature to give the priority and preference to the	
	principle of the protection of the environment from pollution	
	and not just to the mete of the removal of damages after its	
	occurrence or to compensate for it. 6- The official authorities, especially those who perform and	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	practice the preparation of the economic development plans	
	shall take the environmental considerations in the economic	
	development plans in all levels and stages of planning and to	
	ensure that the environmental planning is an essential part of	
	the comprehensive development planning in all aspects,	
	industrial, agricultural, construction and tourism and others to	
	avoid the negative effects to the environment in future.	
	7- The Official authorities and its public, private and cooperative	
	institutions especially those authorized to issue licenses for	
	new or existing projects as well as the foreign companies,	
	that practice -and carry out their activities within Yemen's	
	borders, shall take into consideration the principle of	
	environmental assessment of projects so that the performance of the environmental assessment studies shall	
	not contradict with that of the economic feasibility studies.	
	(1) It shall not be permissible to issue the license for new	
	projects and establishments that damage or pollute the	
	environment or cause its deterioration.	
	(2) All new projects and establishments shall adhere and	
	oblige to comply to use the best available technologies to	
	protect the environment and to control pollution. As to the	
	existing projects and establishments shall comply with the	
	standards and norms of the protection of the environment to	
	be issued by the Environment Protection Council or any other	
	concerned body, or to be supplied with equipment and	

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	technologies that prevent the occurrence of any substantial	
	damage to the environment.	
	9- Anyone who damages the environment shall be responsible	
	for all the costs and expenses arising out of removing the	
	damage in addition to the compensation for it.	
	10- All state organs which have responsibility for information,	
	education and culture shall adhere and abide to undertake	
	the task of enhancing raising the level of awareness of the	
	individual and society in relation to the issues of environment	
	and the importance of its protection as including the	
	environmental protection sciences within the school	
	syllabuses and courses for the different education levels.	
To promote quality and safety, and	EPL 26 of 1995 Article 3	There is a Gap. EPL did not
considerations relating to climate change, in the design and construction	This law shall aim to fulfill the following objectives:	specify climate change as it was
of infrastructure, including dams.	7- The contribution through the measures provided for and	old. However, Since Yemen has ratified the UN framework
	stipulated in the rules of this law in protecting the elements of	convention on climate change in
	the international environment including the ozone layer and	1996. And the Kyoto protocol in
	the climate.	2008. FAO will apply ESF
		requirements
To avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials.	EPL 26 of 1995 Article 3	No Gap. National requirements
	This law shall aim to fulfill the following objectives:	and ESF objectives are aligned,
	1- The protection of the environment and the conservation of its	and complement each other. FAO
	safety and balance and the maintenance of its natural	will apply both the ESF and the national requirements

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	 ecosystems. 2- Combating all types of pollution arid to avoid any damages or negative impacts, direct or indirect of long term or immediate 4- Protection of the society and health of the human being and other living organisms from all environmentally damaging activities and acts or that which interfere with or. obstruct the fair and justifiable us and enjoyment of natural environment. 	
To have in place effective measures to address emergency events	 Yemen Labor Law Number 5 for 1995, Articles 119 1. Employers shall protect their workers' health, notably by: (a) conducting a medical examination of workers prior to their employment; (b) transferring a worker to a job suited to his health condition as determined by a report of the competent medical authorities, whenever possible; (c) providing a worker with suitable work according to the recommendations of the competent medical authorities and depending on circumstances and job opportunities pursuant to the provisions of the Social Insurance Act, if he has contracted an occupational disease or sustained an injury at work or as a result thereof; (d) bearing the cost of medical treatment and related requirements in respect of any number of workers in accordance with employers' medical regulations as approved by the Ministry; (e) employing a qualified nurse at the workplace or in its vicinity if the number of their workers exceeds 50; (f) entrusting the medical treatment of their workers to a doctor or a medical establishment if the number of workers employed at the 	There is a Gap in the national law. It did not require the employer to put in place effective measures to address emergency events. However, the national law impose the employer to bear the cost of medical treatment and related requirements. Therefore, FAO will apply ESF requirements

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	workplace or in its vicinity exceeds 100;	
	(g) keeping such documents on their workers' medical treatment as may be transmitted to them. Workers may obtain copies of certificates and documents relating to their condition which are transmitted to the employer by the competent medical authorities.	
	2. Employers whose workforce is below the threshold provided for in this article may entrust the medical treatment of their workers to a doctor or a medical establishment.	
	3. The Minister may, in respect of dangerous or arduous industries and occupations, require employers whose workforce is below the threshold provided for in this article, to employ a qualified nurse or to entrust their workers' medical treatment to a doctor.	
	Articles 121	
	Unless the employer is ensured for material responsibility, he shall, in accordance with this Code and the Social Insurance Act, bear responsibility for any occupational diseases or injuries which a worker might contract or sustain during the performance of his work or as a result thereof.	
To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.	Yemen Constitution Article 7, c. Protection and respect for private ownership, which cannot be confiscated unless necessary in the public interest, in lieu of fair consideration and in accordance with Law	No Major Gap between National requirements and ESF. National law address measures to ensure that the safeguarding of community properties. However, it does not consider safeguarding community -affected personnel
		FAO will apply ESF regarding the community-affected personnel.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
ESS5. Land Acquisition, Restrictions of	on Land Use and Involuntary Resettlement	
 To avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives 	Yemeni Constitution: article 7, c: . Protection and respect for private ownership, which cannot be confiscated unless necessary in the public interest, in lieu of fair consideration and in accordance with Law.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements.
 To avoid forced eviction To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost and (b) assisting displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre- displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher 	Yemeni Constitution: article 7, c: . Protection and respect for private ownership, which cannot be confiscated unless necessary in the public interest, in lieu of fair consideration and in accordance with Law.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements.
- To improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure.	This part will not be probably triggered by this project	Not applicable

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
- To conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant.	<u>This part will not be probably triggered by this project</u>	Not applicable
- To ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected.	Pesticide Law no 25 of 1999: Article 23-C : The competent authority has the right to adopt the following measures: Any person handling with pesticides in the Republic is obliged to refill any leaking pesticide -container and to clean contaminated areas and to pay financial compensation under the supervision of the competent authority.	No Gap. National requirements and ESF objectives are aligned, and complement each other. FAO will apply both the ESF and the national requirements.
SS6. Biodiversity Conservation and S	Sustainable Management of Living Natural Resources	
- To protect and conserve biodiversity and habitats.	Included in the Environmental Protection Law No. 26/1995 and Yemen is a party in the Conservation of Biodiversity Convention.	No major gap between national, international requirements and ESF objectives. Both will be applied.
- To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity.	Included in the Environmental Protection Law No. 26/1995 and Yemen is a party in the Conservation of Biodiversity Convention.	No major gap between national, international requirements and ESF objectives. Both will be applied.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
 To promote the sustainable management of living natural resources. 	Included in the Environmental Protection Law No. 26/1995 and Yemen is a party in the Conservation of Biodiversity Convention.	No major gap between national, international requirements and ESF objectives. Both will be applied.
- To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.	Included in the Environmental Protection Law No. 26/1995 and Yemen is a party in the Conservation of Biodiversity Convention.	No major gap between national, international requirements and ESF objectives. Both will be applied.
ESS7. Indigenous Peoples/Sub-Sahara	an African Historically Underserved Traditional Local Communities	
- Not Relevant		
SS8. Cultural Heritage		
- Not Relevant		
SS9. Financial Intermediaries		
- Not Relevant		
SS10. Stakeholder Engagement and I	Information Disclosure	
- To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a	Yemen constitution Article 35: Environment protection is the responsibility of the state and the community and that it is a duty for every citizen. EPA LAW:	FAO will follow ESF requirements

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
constructive relationship with them, in particular project- affected parties.	Community and NGO participation are considered an essential part of consultation while planning proposed projects, and is a continuous process before, during and after project implementation	
	(EPL Article 4, para 4 and Article 82).	
	Furthermore, NGOs and individuals can directly sue any person or entity who causes harm to the environment and natural resources or participate in its deterioration and pollution	
 To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance. 	 Local Administration Law no 4 of 2000 Article 19: 8. Consider and approve fundamentals and rules organizing citizens' contributions to the funding, founding and maintenance of essential services projects funded by them or with their participation. 9. Discuss and approve fundamentals and rules of simplifying and improving dealings of the executive organs with citizens in all spheres. 10. Consider public affairs that concern citizens at the level of the governorate and issue the necessary resolutions and recommendations in this respect. 	FAO will follow ESF requirements
- To promote and provide means for effective and inclusive engagement with project- affected parties throughout the project life cycle on issues that could potentially affect them.	 recommendations in this respect. Included in the Local Administration Law no 4 of 2000 Article 19: 8. Consider and approve fundamentals and rules organizing citizens' contributions to the funding, founding and maintenance of essential services projects funded by them or with their participation. 9. Discuss and approve fundamentals and rules of simplifying and improving dealings of the executive organs with citizens in all 	FAO will follow both national and ESF requirements

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	spheres. 10. Consider public affairs that concern citizens at the level of the governorate and issue the necessary resolutions and recommendations in this respect.	
- To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format.	 Included in Yemen Labour Law Number 5 for 1995, Article 118 1. The employer shall: (a) advise and inform workers, before their engagement, on work-related and occupational hazards and on the preventive procedures which must be observed at work; (b) provide continuous guidance to workers and control their observance of occupational safety and health; (c) display in a visible place instructions, guidance and posters explaining work-related and occupational hazards and methods of preventing them and use all possible illustrative means to that end; (d) increase worker's awareness of occupational safety and health protection and make them participate in training courses and seminars on these matters. 2. Where an employer fails to apply labour and worker protection rules and occupational safety instructions, the inspector may obtain an order from the Minister to stop the functioning of the machinery which is the source of danger for one week, until the causes of danger are eliminated. Where the danger persists and the employer fails to take remedial action and the period of partial stoppage is extended, or if a request for total stoppage is submitted, the Minister shall refer the matter to the competent Arbitration Committee. Workers who are suspended as a result of this procedure shall be entitled to their full wages. ESIAs should include a reference list and a non-technical summary for 	National requirements and ESF objectives are aligned, and no significant gaps are noted. Both World Bank ESF objectives and National requirements will apply to the Project.

WORLDBANK ESF REQUIREMENT	Yemen Applicable National Laws	Gaps/ Recommended Action
	public use and disclosure in a form and language understandable to general public (EPA EIA guideline).	
- To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances	Article 51 of the Constitution States: Citizens have the right of recourse to the courts to protect their rights and lawful interests. They also have the right to submit their complaints, criticisms, and suggestions to the various government bodies directly or indirectly.	Both World Bank ESF objectives and National requirements will apply to the Project.

ANNEX 2: PROHIBITED PESTICIDES

			ورارة الزراعة والرع ورارة الزراعية قنطاع الخدمات الزراعية
	في الجمهورية اليمن	نوعة ومقيدة بشدة اسم السد	
اسم البيد ((نجليزي)	اسم البيد (عربي)	اسم المبيد (انجليزي)	اسم المبيد (عربي)
Isazofos Pirimiphos Propaphos Ethoprophos Brodifacoum Cadusafos Coumatetralyl Strychnine Warfarin Zinc phosphide Malathion Diazinon Metribuzin Chlorpyrifos Ethion Piperonyl butoxide Trifluoralin Triforine Oxadiazon Pendimethalin Tebuconazole Oxadixyl Acephate Amitraz Mancozeb Permethrin Aluminium phosphide Thiram Zineb Pyrazophos	 35. أزيفوس 36. بريموفوس 37. بروبافوس 38. ايثوبروفوس 39. بروديفاكوم 39. بروديفاكوم 40. كادوسافوس 41. كوما تترايل 43. كلورونين 44. فوسفيد زنك 44. ميتري بيوزين 45. ملاثيون 46. ديازينون 47. ميتري بيوزين 48. كلوروبير وفوس 49. ايثيون 40. يندي ميثالين 50. نيدي ميثالين 53. ترايفورين 54. ميندي ميثالين 53. ترايفورين 54. أوكساديازون 55. أوكساديكسيل 56. أوكساديكسيل 57. أسفيت 58. أميتراز 58. أميتراز 59. ميدميثرين 60. بير ميثرين 61. فوسفيد الومنيوم 63. زينيب 64. بير زهوس 	Captafol Dichlorvos, DD Methiocarb Methomyl Methidathion Carbofuran Monocrotophos Fenamiphos Propetamphos Captan Cyproconazole Phosalone FosetyLAl Bendiocarb Fenitrothion Trichlorfon Cypermethrin Hexaconazole Dicofol Bifenthrin Dimethoate Benomyl Folpet Haloxyfop methyl Pirimicarb Maneb Carbaryl Chlorothalonil Paraquat dichloride Parathion	 1. كايتاهول 2. ديكلور هوس 3. ميثيوكارب 4. ميثيوميل 4. ميثيوميل 5. ميثيدئيون 6. كاريوهوران 6. كاريوهوران 7. مونوكروتوهوس 8. هيناميفوز 7. مونوكروتوهوس 9. كابتان 9. كابتان 9. كابتان 10. كابتران 11. كايبر وكونازول 11. كايبر وكونازول 11. كايبر مثرين 12. ديكوهول 13. ميندريون 14. ميندريون 15. هنتر اثيون 16. ميندريون 17. سايبر مثرين 18. هيكساكونازول 19. ديكوهول 10. ديكوهول 12. دايمثوايت 12. دايمثوايت 13. هوسيل شويب ميثيل 14. ميندرين 15. مينوميل 16. مينوميل 17. مايبر مثرين 18. هيكساكونازول 19. ديكوهول 10. مينوميل 11. كابراريل 12. دايمثوايت 13. مينوميل 14. ميثيوميل 15. دايمثوايت 16. مينوميل 17. كابرونين 18. هيكساكونازول 19. ديكوهول 10. دينوميل 11. دايمثوايت 12. دايمثوايت 13. دايمثوايت 14. ديكوهول 14. ديكوهول 15. دايمثوايت 16. مازيب 17. كارباريل 18. كارورديالونيل 19. ديارداكوات دي كلوريد 10. ديارداكيون
Profenofos Quinalphos.methyl Bromoproprlate	65 - بروفينغوس 66 - كوينغوس ميثيل 67 - بروموبرويلت	Endosulfan Cyhexatin Triazophos Carbosulfan	31۔ اندوسلفان 32۔ سیهکساتین 33۔ ترای زیوہوس 34۔ کاربوسلفان

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ANNEX 3: EXCLUSION LIST

The following activities are prohibited under the Project (ineligible as part of the "exclusion list") in order to avoid adverse irreversible impacts on the environment and people:

- Relocation and/or demolition of any permanent houses or business.
- Use of the project as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation.
- Land appropriation
- Land acquisition using eminent domain without FAO-mandated consultation and agreement of the owner.
- Land acquisition/use under a subproject which results in permanent or temporary loss of granaries, outside toilets and/or kitchens.
- New settlements or expansion of existing settlements.
- Activities that would directly or indirectly support conflicts such as explosive inputs, weapons supply, etc.
- Activities that would likely create adverse impacts on ethnic groups/indigenous peoples within the village and/or in neighboring villages, or activities unacceptable to ethnic groups living in an ethnic homogenous village or a village of mixed ethnic composition.
- Activities that would likely have negative impacts on vulnerable (women and child)
- Damage or loss to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.
- Resources access restriction (e.g. restricted access to farming land) that could not be mitigated and will result in adverse impacts on the livelihoods of ethnic groups and disadvantage peoples.
- Activities of any kind within natural habitats and existing or proposed protected areas.
- Purchase of banned pesticides, insecticides, herbicides and other unbanned pesticides, unbanned insecticides and unbanned herbicides and dangerous chemicals exceeding the amount required to treat efficiently the infected area. However, if pest invasion occurs, the use of small amounts of eligible and registered pesticides in Yemen will be allowed if supplemented by additional training of farmers to ensure pesticide safe uses in line with FAO/IFC policies and procedures (FAO clearance is needed). And no pesticides, insecticides and herbicides will be allowed in the buffer zone of protected area, protected forest and natural habitats. Highly Hazardous Pesticides (HHP) will not be used by the project.
- Purchase of destructive farming gear and other investments detrimental to the environment.
- Unsustainable exploitation of natural resources (including forestry operations like logging, harvesting or processing of timber and non-timber products (NTFP)).
- Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.

- Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.
- Production or trade in any product or activity deemed illegal under Yemen's laws or regulations or international conventions and agreements, or subject to international bans, including trade in any products with businesses engaged in exploitative environmental and/or social behaviour.
- Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor, child labour or significant occupational health and safety issues.
- Sub-activities that require full EIA, including any sub-projects involving: (i) production or trade in products containing Polychlorinated biphenyls (PCBs); (ii) production or trade in ozone depleting substances; (iii) in alcoholic beverages including country made liquor; (iv) processing of products involving tobacco; (v) production or trade in or use of unbounded asbestos fibres.
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Preference list

- Promotion of climate resilient agriculture practices;
- Promotion of sustainable and climate-smart management of water resources;
- Promotion of Integrated Pest Management (IPM), as well as the use of natural/organic pesticides from herbs (biopesticides), rather than chemical pesticides, in instances where pesticides must be used;
- Promotion of skills development to increase food security, nutritional/dietary awareness, and climate resiliency of beneficiary households; and
- Promotion of an improved enabling environment (financial opportunities, governing institutions, agricultural extension, policies and/or acts) to facilitate food security, nutrition, and resiliency.

ANNEX 4: GBV ACTION PLAN

PROJECT RELATED GBV/SEA RISKS:

GBV/SEA/SH incidents in UN-implemented projects have been extremely limited and related to cases associated with distribution of humanitarian aid within Internally Displaced Persons (IDP) camps. For the FSRRP, the overall project-related GBV/SEA/SH risks would be low and mostly pertain to potential labour influx, which is expected to be minimal, given that construction activities are small-scale and the unskilled labour would be supplied locally with only the occasional skilled labourer coming from outside the local community. That said, due to inherent GBV/SEA/SH risk associated with ongoing conflict (not specific to the project, but rather the Yemen context more broadly), the GBV/SEA/SH risk category is considered medium.

GUIDING PRINCIPLES:

As part of its measures to protect staff and beneficiaries of assistance and the populations of Yemen, FAO adheres to the IASC Accountability to Affected Population Commitments which aims to translate aspirations into action and results among humanitarian and development actors: Ieadership; participation and partnership; information, Prevention of Sexual Exploitation and Abuse, feedback and action; and results. FAO is already acting to address Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) and pursues a "zero tolerance" policy towards sexual exploitation and abuse (SEA).

FAO SOP on Prevention of sexual exploitation and Abuse (PSEA) defines guiding principles:

- The principles of integrity, professionalism, respect for human rights and the dignity of all peoples underpin FAO's commitment to preventing and addressing acts of SEA. These principles are enshrined in the FAO Staff Regulations and Rules, as well as in the Standards of Conduct for the International Civil Service⁵²⁰, which require the highest standards of integrity from all employees.
- As stated in Director-General's Bulletin <u>No.2012/70</u>, FAO has a zero-tolerance policy towards acts of SEA that are committed by its employees or any other personnel associated with the work of FAO⁵²¹ Such acts constitute serious misconduct and may therefore provide grounds for disciplinary measures, including summary dismissal, or termination of contract.

⁵²⁰ Standards of Conduct for international civil servant (Manual Section 304).

⁵²¹ This includes acts committed by FAO contractors' employees, or any other person engaged and controlled by the contractor to perform any services agreed upon with FAO. It also includes any entity financed by FAO or involved in the execution of FAO activities, including suppliers and service providers bidding for or contracted in commercial relationships with FAO, or partner organizations receiving, under LoAs, financial or other resources from FAO in respect of its programs and operations.

- According to FAO, "Employee" refers to all those holding an employment contract with FAO, including Consultants, PSA holders, as well as those performing nonremunerated services such as Volunteers. It also includes Government provided staff.
- This also includes acts committed by FAO contractors' employees, or any other person engaged and controlled by the contractor to perform any services agreed upon with FAO. It also includes any entity financed by FAO or involved in the execution of FAO activities, including suppliers and service providers bidding for or contracted in commercial relationships with FAO, or partner organizations receiving, under Letters of Agreement (LoAs), financial or other resources from FAO in respect of its programs and operations.
- Whilst the emphasis of FAO activities in the area of PSEA will be on prevention and protection from SEA, the SOP establishes responsibilities and a formal reporting mechanism for SEA complaints, as well as related procedures for their investigation and subsequent follow-up⁵²²
- **Safety:** To avoid any additional harm, the safety of SEA victims will be ensured at all times, and the safety of all parties involved in PSEA must be fully considered.
- **Confidentiality:** The confidentiality of complainants, victims and other relevant parties must be respected at all times.
- **Transparency:** The functioning of reporting mechanisms will remain transparent.
- Accessibility: SEA reporting mechanisms are available to anyone who may have reason to allege a SEA incident, including local populations and staff and non-beneficiaries. Establishing women quotas at community-level grievance management to facilitate woman to woman reporting
- Accountability: FAO Yemen is held accountable for their PSEA actions through regular reporting to the FAO Ethics office.

ADDRESSAL OF GBV/SEA CASES:

⁵²² In instances where persons are not subject to the FAO Staff Regulations and Rules, investigation and follow-up actions will be dealt with in accordance with specific procedures in place for the investigation of third parties involved in programs and operations of the Organization. In addition, specific PSEA clauses have been inserted into all LoAs and procurement of goods and services contracts, allowing FAO to immediately terminate any such LoA or contract in cases of SEA committed by this category (see Manual Sections 502 and 507).

Building on Existing Systems: Consultations with stakeholders, especially women, during the preparation of the contemporaneous Yemen Desert Locust Project, highlighted that victims of GBV always prefer to remain silent and not discuss the violence experienced given the socio-cultural constraints on these issues. Following on the approach used in the Yemen DLRP, the complaints/grievance redress mechanism for this project will utilize the same process. Namely, in the event of GBV, the complaint is lodged at the level of an NGO (or the UN implementing agency) which intervenes in the field of assistance to GBV, making use of the National Police and/or the Social Services on duty, if needed, depending on the level of violence suffered by the victim. The victim can also directly contact the Social Services of the locality to explain her/his situation rather than going through an implementing partner (UN, NGO, or MAI). The rest of the process would then remain the same. Once reported, the national police initiate legal proceedings into matters where the violence is proven by a medical certificate. If the victim has suffered trauma, they will be referred to the local Social Center for care. In caring for the victim, one of the most important points concerns is their social reintegration.

Further options: Cases of GBV/SEA can be reported through the toll free numbers provided by the implementing agencies, ideally one specifically dedicated for PSEA, or through the general Project GRM, both of which will be made available prior to implementation. The GBV survivor has the freedom and right to report an incident to anyone: community member, project staff, GBV case manager, etc⁵²³.

Training: All relevant staff of the PMU, PIU, FAO and contractors will receive training on receiving GBV complaints and referral systems including World Bank Good Practice Note on 'Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing', ideally during the project initiation phase and as part of the staff welcome package. The GRM operators will be trained to receive those cases in an appropriate manner and immediately forward them to the GBV/SEA referral system. The GRM operator will ensure appropriate response by i) providing a safe and caring environment and respecting the confidentiality and wishes of the survivor; ii) if the survivor agrees, obtaining informed consent and making referrals; and iii) providing reliable and comprehensive information on the available services and support for survivors of GBV.

⁵²³ If the survivor is a child, the consent of parents or guardians should be sought if in the best interest of the child and if they are not the perpetrators. If parents/guardians refuse to pursue the case in the court of law on the child's behalf, with clear evidence, the relevant government representative should take up the role and pursue the case on the child's behalf to ensure that she/he is protected. Parents/guardians should be first counselled first and, thereafter, taken to task by filing a case against them for denying the child her/his rights. All service provider interventions to child survivors must be undertaken with staff trained in child-friendly procedures regarding the handling of cases. A child survivor should continue to go to school while procedures are ongoing, and all efforts should be done to ensure her/his protection. In addition to this, all the above reporting and referral procedures should be applied.

Guidelines: Beneficiaries and communities should generally be encouraged to report all GBV/SEA cases through the dedicated GBV/SEA referral system and complaints resolution mechanism. This will be made explicit in all community awareness sessions and be a part of the publicly disclosed information. The GBV/SEA referral system will guarantee that survivors receive all necessary services, including medical, legal and counselling, and cases will be reported to the police where applicable.

If such cases are reported through the project GRM, the GRM Operator needs to report the case within 24 hours to the PCU, as the PCU is obliged to report any cases of GBV/SEA to the World Bank within 48 hours (provided there is informed agreement from the survivor). Furthermore, cases need to be reported to the respective agency if it concerns a direct worker or a worker from a sub-contractor, NGO partner, or even a community worker, following a survivor-centered approach. FAO has its organizational PSEA systems in place through which violations by staff will be handled. This may be in addition to criminal prosecution to ensure that sanctions for the violation of Codes of Conduct are implemented. FAO oversees that the courses for contractors regarding the Code of Conduct obligations and awareness raising activities to the community are in place. The information gathered should be monitored and reported to the FSRRP PCU and the World Bank. All reporting will limit information to the survivor's wishes regarding confidentiality and in case the survivor agrees on further reporting, information will be shared only on a need-to-know-basis, avoiding all information which may lead to the identification of the survivor and any potential risk of retribution.

ANNEX 5: ENVIRONMENTAL AND SOCIAL SCREENING FORM/CHECKLIST

FORM A: ENVIRONMENTAL & SOCIAL SCREENING FORM (ALL SUBPROJECTS)

GENERAL INFORMATION

Food and Agriculture Organization of the United Nations	
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It is important to screen each subproject to see if they will create social and environmental risks to the community. Even if there is a plan to lessen the risk to the community to people within the community, those risks should be listed, regardless of planned mitigation and management measures. It is necessary to identify potential inherent risks if mitigation measures are not implemented or fail. This means that risks should be identified as if no mitigation or management measures were to be put in place.

SECTION A: General Information	
Date of screening:	
Name of sub-project:	
Main project component (to which sub-project relates):	
Name of applicant (implementing agency):	
Proposed sub-project budget:	
Proposed sub-project duration:	
ES Screening Team Leader and Contact Details:	
ES Screening Team Members:	
Program/Site/Activity location	
Sub-project Description.	
Briefly describe the sub-project activities, particularly as	
they interact with the environment and social context	
Categorize sub-project activities into high, substantial,	
moderate, and low risk activities.	

CHECKLIST FOR EXCLUSION ACTIVITIES

Exclusion activities	Yes	No	l don't know	If yes, provide more information
Relocation and/or demolition of any permanent houses or business.				
Use of the project as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation				
Land appropriation				
Land acquisition using eminent domain without FAO-mandated consultation and agreement of the owner				
New settlements or expansion of existing settlements				
Activities that would directly or indirectly support conflicts such as explosive inputs , weapons supply, etc.				
Activities that would likely create adverse increase ethnic groups people's conflicts.				
Activities that would likely have negative impacts on vulnerable (women and child)				
Damage or loss to cultural property , including sites having archaeological (prehistoric), paleontological, historical, religious, cultural and unique natural values				
Resources access restriction (e.g. restricted access to farming land) that could not be mitigated and will result in adverse impacts on the livelihoods of ethnic groups and disadvantage peoples.				
Activities of any kind within natural habitats and existing or proposed protected areas				
Purchase of banned pesticides, insecticides, herbicides and other unbanned pesticides, unbanned insecticides and unbanned herbicides and dangerous chemicals expired or exceeding the amount required to treat efficiently the infected area. Highly Hazardous Pesticides (HHP) will not be used by the project.				
Purchase of destructive farming gear and other investments detrimental to the environment.				
Unsustainable exploitation of natural resources				
Introduction of non-native species , unless these are already present in the vicinity or known from similar settings to be non-invasive				
Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses				

Exclusion activities	Yes	No	l don't know	If yes, provide more information
Trade in wildlife or wildlife products regulated under Convention on International Trade in				
Endangered Species (CITES)				
Production or trade in any product or activity deemed illegal under Yemen's laws or				
regulations or international conventions and agreements, or subject to international bans				
Labor and working conditions involving harmful, exploitative, involuntary or compulsory				
forms of labor, forced labor, child labor or significant occupational health and safety issues				
Subproject considering: (i) Production or trade in products containing Polychlorinated				
biphenyls (PCBs); (ii) production or trade in ozone depleting substances; (iii) in alcoholic				
beverages including country made liquor; (iv) processing of products involving tobacco; (v)				
production or trade in or use of unbounded asbestos fibres				

CHECKLIST TO IDENTIFY POTENTIAL E&S RISKS AND IMPACTS OF ACTIVITIES

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
ESS 1: Assessment and Management of Environmental and Social Risks and Impa	cts				
 Is a full Environmental and/or Social Impact Assessment required for the sub-project based on: (i) its risk rating? (e.g. high or substantial risk sub-projects – see Appendix A for categorization guidance); and/or (ii) national legislation within Yemen? 				ESMF	
Have there been any complaints raised by local affected peoples or groups or NGOs regarding conditions of the sub-project area or, if relevant, facility to be used? If so, will project financing be used to remedy these complaints?				ESMF Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Is there a risk of diversion of sub-project benefits?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Is there a risk of lack of monitoring of sub-project activities due to remoteness of location and insecurity?				Security Management Plan (SMP)	
Is there a risk that sub-project benefits may not reach truly vulnerable populations?				Stakeholder Engagement Framework (SEF), Framework for Addressing Gender-Based and Child Violence, Sexual Exploitation and Harassment against Women and Children (FGBCV-SEH-WC)	
Is there a risk that sub-projects may be manipulated by different factions?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
Is there a risk that the selection of the activity location or beneficiaries will lead to conflict?				Security Management Plan (SMP) Grievance Redress Mechanisms (GRM)	
Does the activity pose a security risk for local staff?				Security Management Plan (SMP)	
Is there a risk that the activity firms up contested local authority structures?				Stakeholder Engagement Framework (SEF)	
Does the sub-project area include land previously unutilized or underutilized? If yes, is there are risk of unexploded ordinances (UXOs) / landmines?				ESMF guidance on UXOs and land use (ESS5)	
ESS 2: Labour and Working Conditions			L	•	
Does the activity include any of the known labour rights / ESS 2 non-compliance risks in Yemen (child and forced labor)?				Labor Management Procedures (LMP) Framework for Addressing Gender- Based and Child Violence, Sexual Exploitation and Harassment against Women and Children (covers child labour)	
Will works financed include construction, reconstruction, or demolition works? <i>If yes, an C-ESMP needs to be prepared</i>				ESMF guidance on C-ESMPs and Waste Management Plan (WMP)	
Does the implementing agency or subcontractor have valid operating permits, licenses, approvals, etc.? If not, please explain. Permits to screen for include: construction permits, operational/use permits, waste management permits, environmental permits, land permits, water management permits				ESMF guidance on national legislation	
If not, will financing be used to obtain the required permit(s)? Does the IA or subcontractor have any significant outstanding environmental fees, fines or penalties or any other environmental liabilities (e.g. pending legal proceedings involving environmental issues etc.)? If yes, will the financing be used to correct this condition and please explain?				ESMF guidance on procurement and procedures for managing contractors	

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
Does the activity include labour-intensive production/manufacturing?				Labour Management Plan (LMP) ESMF Occupational Health and Safety Guidelines (OHSG)	
Does the activity include primary agricultural activities?				Labour Management Plan (LMP) ESMF Occupational Health and Safety Guidelines (OHSG)	
Is there a security risk for (sub) Project Workers?				Security Management Plan (SMP)	
Is there a risk that the operation and maintenance of sub-project facilities cause OHS issues?				OHSG ESMF	
Is there a risk of lacking OHS for workers at the construction site or site of DL control spraying activities?				Develop an Occupational Health and Safety Plan (OHSP) based on the OHSG	
Is there a risk of delayed payment of workers?				Labor Management Procedures (LMP)	
Is there a risk that workers are underpaid?				Labor Management Procedures (LMP)	
Is there a risk that women will be excluded and/or not included in equitable numbers?				Labor Management Procedures (LMP) Framework for Addressing Gender- Based and Child Violence, Sexual Exploitation and Harassment against Women and Children	
Is there a risk that provision of employment or contracts sparks conflicts?				Security Management Plan (SMP) Grievance Redress Mechanisms (GRM)	
ESS 3: Resource Efficiency and Pollution Prevention Management					
Will the activity result in the production of solid waste? (directly by the sub- project or by workforce)				Waste Management Plan, based on the ESMF and World Bank Group's	

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
Will the activity result in the production of toxic or hazardous/biohazardous waste? (e.g. used oils, inflammable products, pesticides, solvents, industrial chemicals, ozone depleting substances, animal remains, blood from slaughter, etc.)				Environmental, Health, and Safety General Guidelines Integrated Pest Management Framework (IPMF) C-ESMP	
Will the activity result in the generation of dust and noise?				C-ESMP	
Will the activity result in soil erosion?				C-ESMP / ESMP (depending on context)	
Will the activity produce effluents (wastewater)?				C-ESMP Waste Management Plan	
Will the activity result in increased levels of vibration from construction machinery?				C-ESMP	
Will the sub-project produce air pollution? (e.g. significant greenhouse gas emissions, dust emissions and other sources)				C-ESMP / ESMP (depending on context)	
Will the activity disturb any fauna and flora?				ESMP IPMF	
Will the activity result in irrigation water with high Total Dissolved Solids (TDS) with more than 1,500 ppm?				C-ESMP / ESMP (depending on context)	
Can the sub-project affect the surface or groundwater in quantity or quality? (e.g. discharges, leaking, leaching, boreholes, etc.)				Waste Management Plan (WMP) IPMF	
Will the sub-project activities require use of chemicals (e.g. fertilizers, pesticides, paints, etc.), and/or might they prompt others to increase their use of chemicals?					
Is there any risk of accidental spill or leakage of material?					
ESS 4: Community Health and Safety					
Is there a risk of increased GBV/SEA cases due to labour influx?				Framework for Addressing Gender- Based and Child Violence, Sexual Exploitation and Harassment against Women and Children Labor Management Procedures (LMP)	

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
Is there a risk of spread of communal diseases due to labour influx?				Labor Management Procedures (LMP) C-ESMP	
Is there a security risk to the community triggered by project activities?				Security Management Plan (SMP)	
Does the activity have the potential to upset community dynamics?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Will the activity expose community members to physical hazards on the sub- project site?				C-ESMP or ESMP (depending on context) IPMF (if physical hazards are due to pesticide use)	
Will the activity pose traffic and road safety hazards?				C-ESMP or ESMP (depending on context)	
Is there a possibility that the activity contaminates open wells, potable water sources, and/or water used for agricultural activities?				Waste Management Plan C-ESMP or ESMP (depending on context)	
Is there a possibility that the activity spreads pathogens and other pollutants (e.g. latrines)?				Waste Management Plan C-ESMP or ESMP (depending on context)	
Can the activity contribute to the spread of disease (e.g. community centres during pandemic situation)?				ESMP Waste Management Plan	
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement					

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
 Will the proposed activity/sub-project require acquisition of land, e.g.: Encroachment on private property Relocation of project affected persons Loss of private lands or assets Impacts on livelihood incomes This includes displacement of a population, either physically or economically (e.g. relocation for construction purposes, temporary or permanent; activities which may lead to loss of income, assets or means of livelihoods). If yes, a site-specific Resettlement/Livelihood Restoration Action Plan must be prepared 				ESMF exclusion list and Voluntary land donation Framework	
Is the project located in a conflict area, or has the potential to cause social problems and exacerbate conflicts, for instance, related to land tenure and access to resources (e.g. a new road providing unequal access to a disputed land)?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM) ESMF Voluntary land donation Framework	
Will the activity lead to disputes over land ownership?				ESMF and Voluntary land donation Framework Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Would the project potentially discriminate against women and girls based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural	Resource	es		1	1
Will the activity impact sensitive and/or protected areas?				ESMF	
Is there a risk that the sub-project causes ecological disturbances?				ESMF	

Risk Category (Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)	Yes	No	l don't know	If these risks ('yes') are present, please refer to:	Comments
Is there a risk that the sub-project will cause (i) changes to landscapes and habitat; (ii) habitat fragmentation; (iii) blockages to migration routes; (iv) increased water consumption; and/or (v) contamination of natural habitats?				ESMF	
Is there a risk that the activity causes loss of precious ecological assets?				ESMF	
ESS 8: Cultural Heritage					
Will the subproject be located in or close to a site of natural or cultural value?					
Is the subproject site known to have the potential for the presence of cultural and natural heritage remains?				Chance Find Procedures (ESMF)	
ESS 10: Stakeholder Engagement and Information Disclosure					
Is there a risk that the activity fails to incorporate measures to allow meaningful, effective and informed consultation of stakeholders, such as community engagement activities?				Stakeholder Engagement Framework (SEF)	
Has their been historical exclusion of disabled persons or other marginalized groups (women, children, ethnic minorities, elderly) in the area?				Stakeholder Engagement Framework (SEF)	
Is there a lack of social baseline data?				ESMF	
Are women likely to participate in decision-making processes regarding the activity?				Stakeholder Engagement Framework (SEF)	
Is there a risk that exclusion of beneficiaries will lead to grievances?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Is there a risk that the activity will have poor access to beneficiaries?				Stakeholder Engagement Framework (SEF) Grievance Redress Mechanisms (GRM)	
Will the Covid-19 outbreak hamper proper stakeholder engagement?				See FAO, and World Bank guidance and regulations on Covid-19	

SUMMARY OF THE SCREENING PROCESS: RESULTS

E&S Screening	Results and Recommend	ation					
Screening Results: Summary of Critical Risks and Impacts Identified	What is the potential risk/impact	Individual Risk/ Impact Rating (Low, Medium, Substantial, High)	ng Mitigation At the end of the screen process, tabulate the mitigation measures ir ESMP Format (Appendix C)				
	e.g. Increased use of pesticides due to increased production	e.g. Medium	e.g. Pest management plan, along with training on OHS (e.g. how to us personal protective equipment (PPE), etc.)				
Is Additional Assessment	Screening Result		Summary of Screening Result Justification				
Necessary? (Evaluate the	1. No further ES As	sessment required.	e.g. "low risk sub-project"				
Risks/Impacts and reflect on options)	2. No further ES Assessment required but requires simple ESMP.		e.g. "low to medium risk sub-project"				
		Done internally or by the sub- nting agency/partner.	e.g. "medium risk sub-project, without need for ESIA, and implemented directly by FAO or an implementation partner"				
	4. Detailed ESMP. (Contracted to a third party.	e.g. "substantial risk sub-project, without need for ESIA, but with the need for a third party consulting firm in order to avoid conflict of interest"				
	5. YES 2. ESIA req party.	uired. Contracted to a third	e.g. "substantial/high risk sub-project"				
Is the activity excluded under the project (does appear in the exclusion list of the ESMF)?	yes		no				

ES Screening Conducted by:	Р	rinted Name(s)	Signature(s)	// DD/ MM/ YYYY	•
Recommended by Sub-project Ma	nager:			/ /	
, , , ,	<u> </u>	Printed Name	Signature	DD/ MM/ YYYY	
Approved by PMU (circle one):	YES	NO	Date (DD/MM/YYYY)://		

APPENDIX A: PROJECT CATEGORIZATION

SECTION B: Is the level of Social/Environmental risk already known?

To which category does the project belong?

Please select the relevant risk level; if the sub-project type is not listed, please specify. The lists are indicative and provide examples of projects that are normally falling into low, moderate, substantial, and high risk categories.

LOW RISK:	MODERATE RISK:	SUBSTANTIAL RISK:	HIGH RISK:
Minimal or no adverse environmental	Moderate or unknown adverse	Substantial adverse	High adverse environmental or social risks and/or
or social risks and/or impacts	environmental or social risks and/or	environmental or social risks	impacts
or social risks and/or impacts	impacts	and/or impacts	impacts
- Communication and translations	- Small and medium-scale infrastructure	Subprojects which involve:	 Large infrastructure projects
 Small training and workshops 	projects (e.g. community centres, rural	-medium-to-substantial scale	 Long distance roads, rail, transmission lines
- Management of funds and grants	roads, housing, buildings, etc.) that do not	resettlement (unless the risks or	(water, power)
under proven supervision/good track	require resettlement or that only involve	impacts of such resettlement are	 Waste treatment and disposal installations
record	minor risks/impacts associated with	minor);	 Projects involving significant quantities of
- Management of social protection	resettlement;	-projects with adverse risks or	hazardous substances
activities	-energy provision for small-scale	impacts on Indigenous Peoples	- Activities leading to large-scale resettlement, land
	development works;	and/or marginalized	acquisition and restrictions to land use
	-small works for water supply and	ethnic/tribal peoples (though	- Power stations
	sanitation;	not as extensively as a high-risk	- Industrial installations (refineries, chemical
	-management of non-hazardous waste;	project)	installations)
	-small scale agriculture and on-farm	-Significant risks or impacts on	- River basin or land development
	irrigation;	the environment, community	- Large-scale irrigation
	-technical assistance, support and advice	health and safety, labor and	 Subprojects proposed in critical habitats and
	(depending on topic)	working conditions, biodiversity	protect areas
		and/or cultural heritage, but	
		that are not as extensive as a	
		high-risk project	
		-cumulative moderate risks	
		which, together, create	
		substantial risk due to	
		interaction	

E&S Screening	Results and Recommendation	
Screening Results: Summary of Critical Risks	Risk/Impact	Mitigation
and Impacts Identified	<i>E.g. Temporary displacement (physical or economical) of community members near construction site of community centre</i>	e.g. Resettlement Action Plan (and/or livelihoods restoration plan)
	E.g. Occupational Safety and Health	e.g. Use of appropriate PPE. Training on appropriate workplace conduct.
	e.g. Increased use of pesticides due to increased production OR specific control-spraying activities	e.g. Pest management plan, along with training on OHS (e.g. how to use personal protective equipment (PPE), etc.)
Is Additional Assessment	Screening Result	Summary of Screening Result Justification
Necessary?	6. No 1. No further ES Assessment required.	
	7. No 2. No further ES Assessment required but requires simple ESMP (See Appendix C)	
	 Yes 1. Detailed ESMP. Done internally or by the sub-project implementing agency/partner. 	
	9. Yes 2. Detailed ESMP. Contracted to a third party.	
	10. YES 2. ESIA required. Contracted to a third party.	
Next Steps	Screening Result	Action. Select applicable action consistent with the Summary of Risks. All end results of the screening and follow up tools should be disclosed at the appropriate level.
	1. No1. No further ES Assessment required.	Proceed to project implementation in compliance with ESMF.
	2. No 2. No further ES Assessment required but requires simple ESMP.	 Produce the ESMP and submit it with Screening Form for review and approval by FAO Project Management Team. Proceed to project implementation in compliance with ESMF.

E&S Screening	Results and Recommendation
	 Yes 1. Detailed ESMP. Done internally or by the sub-project implementing agency/partner. Submit the Screening form with the TORs for the ESMP for review and approval by FAO Project Management Team. Produce the ESMP and submit to FAO for review and approval. Ensure the detailed ESMP mainstreams the ESMF. Do not implement works until approval of the ESMP is received by the FAO and World Bank
	 Yes 2. Detailed ESMP. Contracted to Third Party Consultancy. Submit the Screening form with the TORs for the ESMP for review and approval by FAO. Engage a Registered ESIA Consultant to produce ESMP and submit to FAO first for initial review, then to World Bank for review and approval. Ensure the ESMP mainstreams the ESMF. Do not implement works until approval of the ESMP by the FAO and World Bank.
	 YES 2. ESIA required. Contracted to Registered Third Party Consultancy (recognized by national government). Submit the Screening form with the TORs for the ESIA for review and approval by FAO. Engage a Registered ESIA consultant to produce ESIA and ESMP and submit to FAO first for initial review, then to World Bank and South Sudan's Ministry of Environment (MoE) for review and approval. Ensure the detailed ESMP mainstreams the ESMF. Do not implement works until approval of the detailed ESIA and ESMP by PCU, World Bank and Government of Yemen.

APPENDIX C: TEMPLATE FOR SIMPLE ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

Project In Activity	mpact		for implementation	mitigation	Indicators	Budget	Responsibility	Frequency
Gravel La borrow area for community centre construction	and degradation	Rehabilitate all borrow areas	Contractor	Project implementation	Borrow areas rehabilitated	Contractor's Bid	Sub-project implementing agency (FAO or partner); FAO Project Team	Ongoing.

FORM B: FOR SUBPROJECTS WITH CONSTRUCTION ACTIVITIES.

This form/checklist is to be used for subprojects and completed by FAO/UNDP/Implementing Partners in consultation with the participating/affected communities. It can be used to complement the main screening checklist (Form A).

Title of the subproject:
Type of subproject (activities):
Department implementing subproject:
Governorate and District where subproject is to be implemented:
Number of villages/settlements/households who will benefit from the subproject:
Estimated cost of subproject:
Screening Checklist Completed By (Name and Title):
Date:
Category of subproject assigned by FAO/SFD (low, moderate, substantial, high risk):
Name of Approving Authority (if functioning):

1. Brief Description of Subproject (activities)

Please provide information on the type and scale of subproject (subproject area, area of required land, approximate size of total building floor areas, etc.)

2. The Natural Environment

(a) Describe the land formation, topography, vegetation in/adjacent to the subproject area (e.g. is it a low lying land, water logged, rocky, swampy or wetland, etc.)

(b) Estimate and indicate whether vegetation might need to be cleared.

(c) Are there any environmentally sensitive areas or threatened species that could be adversely affected by the subproject (specify below)?

(i) Intact natural forests	Yes	No
(ii) Riverine forest	Yes	No
(iii) Wetlands (lakes, rivers, seasonally inundated [flooded] areas)	Yes	No
(iv) If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated		areas)? km
(v) Habitats of endangered species for which protection is required under Yeme international agreements		nd/or No
(vi) Others (describe) (e.g. cultural sites, burial places, etc.)	Yes	No
3. Fauna and Flora		
- Will subproject involve the disturbance or modification of existing drainage ch surface water bodies (wetlands, marshes)?		ivers, canals) or No
- Will the subproject lead to the destruction or damage of terrestrial or aquatic endangered species directly or by induced development?	-	ms or No
- Will the subproject lead to the disruption/destruction of wildlife through inter routes, disturbance of wildlife habitats, and noise-related problems?	•	of migratory No
4. Destruction/Disruption of Land and Vegetation		
- Will the subproject lead to unplanned use of the infrastructure being develop	ed?	
	Yes	No
- Will the subproject lead to long-term or semi-permanent destruction of soils i suited for agriculture?		areas not No
- Will the subproject lead to the interruption of subsoil and overland drainage p and fills)?	oatterns (i Yes	
- Will the subproject lead to landslides, slumps, slips and other mass movement		cuts? No
- Will the subproject lead to erosion of lands below the roadbed receiving conc by covered or open drains?		outflow carried No
- Will the subproject lead to health hazards and interference of plant growth ac raised and blown by vehicles?	-	roads by dust No

- Does subproject area (or components of the project) occur within/adjacent to any protected areas designated by government (national park, national reserve, world heritage site, etc.) Yes No - If subproject is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area (e.g. interference with the migration routes of mammals or birds) Yes No 6. Geology and Soils - Based upon visual inspection or available literature, are there areas of possible geologic or soil instability (erosion prone, landslide prone, etc.)? Yes No - Based upon visual inspection or available literature, are there areas that have risks of large-scale increase in soil salinity? Yes <u>No</u> 7. Historical, archaeological or cultural heritage Based on available sources, consultation with local authorities, local knowledge and/or observations, could the subproject alter any historical, archaeological or cultural heritage site or require excavation Yes No nearby? 8. Resettlement and/or Land Acquisition and/or Economic Displacement Yes No - Will the subproject require land acquisition? - If so, will this land acquisition be involuntary? (If the donation is voluntary (i.e. "No" to this question), then the process should follow those laid out in the project's Resettlement Framework) Yes ____No ___ - If so, will this involuntary land acquisition lead to relocation or loss of shelter, loss of assets, or access Yes No to assets? - If so, will this involuntary land acquisition lead to loss of income sources or means of livelihood (whether or not affected persons must move to another location)? Yes No -If so, will this involuntary land acquisition lead to loss of income sources of vulnerable groups such elderly people, women headed family, etc.)? Yes <u>No</u> - Will subproject lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on livelihoods of displaced persons? Yes No 9. Loss of Household Infrastructure - Will subproject result in permanent or temporary loss of household infrastructure (such as granaries,

5. Protected Areas

outside toilets and kitchens, etc.)?

Yes No

-If these impacts on granaries, outside toilets and kitchens are lost due to acquisition of land they are ineligible for project financing.

10. Child and/or Bonded Labour

-Will the subproject lead to child labour (under the age of 18) or forced labor? Yes _____No _____ -If yes, then this subproject will be ineligible for financing.

11. Noise pollution during Construction and Operations

-Will the operating noise level exceed the allowable (ambient) noise limits? Yes _____No _____

-The subproject must abide by national laws and regulations pertaining to noise limits, and must include a plan to manage noise throughout construction and operations within the allowable level.

12. Solid or Liquid Wastes, including Medical Waste

- Will subproject generate large amounts of residual wastes (solid or liquid wast waste?		-	medical
- If "Yes", does subproject include a plan for collection/disposal?	Yes_	No	
13. Pesticides, Insecticides, Herbicides or any other Poisonous toxic or Hazardo	ous Ch	emicals	•
- Will the subproject require the use of such chemicals?	Yes_	No	
- If, "Yes", does subproject include a plan for safe handling, use and disposal?	Yes_	No	
- If the subproject does not have a plan for safe handling, use, and disposal, the financing under this project.	n it is	ineligibl	e for
14. Water and Soil Contamination			
- Will subproject require large amounts of raw materials/construction materials	? Yes _	No	
- Is the proposal for constructing a larger scale project (e.g. major road, public so dams with a height of 10m or more)? If, yes, the subproject is ineligible.	-		•
- Will subproject generate large amounts of residual wastes, construction mater erosion?			ause soil
- Will subproject result in soil or water contamination (e.g. from oil, grease and		-	ipment)?
- Will subproject lead to contamination of ground and surface water bodies by h control and chemicals for dust control?			vegetation
- Will subproject lead to an increase in suspended sediments in streams affected decline in water quality and increased sedimentation downstream?			erosion,

- Will subproject lead to the destruction of vegetation and soil in the right	ght-of-wa		• •
dumps, and equipment yards?		Yes	No
- Will subproject lead to the creation of stagnant water bodies in borro	w pits, qu	uarries, e	tc., encouraging
for mosquitoes?		Yes	No
Signature of community representative:	Date:		
с , , ,			
Signature of FAO/UNDP/Implementing Partners' E&S risk specialist:	Date:		

FORM C: FAO E&S RISK INDENTIFICATION (GENERIC)

Trigger Questions:

	Question	YES	NO
1	 Would this project: result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or reduce the adaptive capacity to climate change or increase GHG emissions significantly; or result in any changes to existing tenure rights⁵²⁴ (formal and informal⁵²⁵) of individuals, communities or others to land, fishery and forest resources? 		
2	Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?		
3	 Would this project: Introduce crops and varieties previously not grown, and/or; Provide seeds/planting material for cultivation, and/or; Involve the importing or transfer of seeds and or planting material for cultivation <u>or</u> research and development; Supply or use modern biotechnologies or their products in crop production, and/or Establish or manage planted forests? 		
4	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?		
5	 Would this project: result in the direct or indirect procurement, supply or use of pesticides⁵²⁶: on crops, livestock, aquaculture, forestry, household; or		

⁵²⁴ Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests

⁵²⁵ Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.

⁵²⁶ Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth.

	Question	YES	NO
	 causing adverse effects to health and/or environment; or 		
	 result in an increased use of pesticides in the project area as a result of production intensification; or 		
	 result in the management or disposal of pesticide waste and pesticide contaminated materials; or 		
	result in violations of the Code of Conduct?		
6	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?		
7	Would this project affect the current or future employment situation of the rural poor, and in particular the labour productivity, employability, labour conditions and rights at work of self-employed rural producers and other rural workers?		
8	Could this project risk overlooking existing gender inequalities in access to productive resources, goods, services, markets, decent employment and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women.		
	 Would this project: have indigenous peoples* living outside the project area¹ where activities will take place; or have indigenous peoples living in the project area where activities will take place; or adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical² and non-physical or intangible³) inside and/or outside the project area; or be located in an area where cultural resources exist? 		
9	* FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).		
	¹ The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question.		
	² Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.		
	³ Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the		

Question	YES	NO
instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals,		
recognize as part of their spiritual and/or cultural heritage"		

If the answer to any of the above trigger questions is "Yes", please utilize the further screening tool, specific to the safeguard in question.

FURTHER SCREENING (GUIDED BY TRIGGER QUESTIONS):

SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT

Question	Management of soil and land resources	No	Yes	Comments
1.1	Would this project result in the degradation (biological or physical) of soils	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to the principles of the <u>World Soil Charter</u>	
1.2	Would this project undermine sustainable land management practices?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Management of water resources and small dams	No	Yes	Comments
1.3	Would this project develop an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m3/day of water?	LOW RISK	 MODERATE RISK Specify the following information: a) implementation of appropriate efficiency principles and options to enhance productivity, b) technically feasible water conservation measures, c) alternative water supplies, d) resource contamination mitigation or/and avoidance, e) potential impact on water users downstream, 	

	Management of water resources and			Comments
	small dams	No	Yes	
			 f) water use offsets and demand management options to maintain total demand for water resources within the available supply. g) The <u>ICID-checklist</u> will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. h) Projects aiming at improving water efficiency <u>will carry out thorough water accounting</u> in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream. 	
1.4	Would this project develop an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m3/day of water?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.5	Would this project aim at improving an irrigation scheme (without expansion)?	LOW RISK	MODERATE RISK The ICID-checklist will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. Projects aiming at improving water efficiency will carry out thorough water accounting in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.	
1.6	Would this project affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.7	Would this project include the usage of wastewater?	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to applicable national guidelines or, if not available, the	

	Management of water resources and small dams	No	Yes	Comments
			WHO/FAO/UNEP Guidelines on Safe Usage of Waste Water in Agriculture	
1.8	Would this project involve the construction or financing of a dam that is more than 15 m . in height?	LOW RISK	CANNOT PROCEED	
1.9	Would this project involve the construction or financing of a dam that is more than 5 m . in height?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Tenure		No	Yes	Comments
1.10	tempora homes o producti	his project permanently or rily remove people from their r means of on/livelihood or restrict their o their means of livelihood?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.11	tempora natural r	his project permanently or rily deny or restrict access to resources to which they have access or use	LOW RISK	PROCEED TO NEXT Q	
	1.11.1	Would the denial or restriction of access be voluntary and with the agreement of the affected people?	CANNOT PROCEED	MODERATE RISK Demonstrate how the project applies and adheres to the principles/framework of the <u>Voluntary Guidelines</u> on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)	
1.12		he project bring about ation or adjustment of tenure	LOW RISK	PROCEED TO NEXT Q	
	1.12.1	Would the consolidation or adjustment of tenure rights be voluntary and with the	CANNOT PROCEED	MODERATE RISK Demonstrate how the project applies and adheres to the principles/framework of the <u>Voluntary Guidelines</u>	

agreement of the affected	on the Responsible Governance of Tenure of Land,	
people?	Fisheries and Forests in the Context of National Food	
	<u>Security (VGGT)</u>	

	Climate		No	Yes	Comments
1.13	of the ada	is project result in a reduction aptive capacity to climate or any stakeholders in the rea?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.14		is project result in a reduction nce against extreme weather	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.15	increase	is project result in a net of GHG emissions beyond those from increased production?	LOW RISK	PROCEED TO NEXT Q	
	1.15.1	Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	LOW RISK	
	1.15.2	Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS

	Protected areas, buffer zones or natural			Comments
	habitats	No	Yes	
2.1	Would this project be implemented within a legally designated protected area or its buffer zone?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Biodiversity Conservation	No	Yes	Comments
2.2	Would this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
2.3	Would this project increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously?	LOW RISK	MODERATE RISK Demonstrate in the project document what measures will be taken to minimize adverse impacts on the environment and ensure that implementation of these measures is reported in the risk log during progress reports.	

	Use of alien species	No	Yes	Comments
2.4	Would this project use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior? *An invasive alien species is defined by the Convention on Biological Diversity as "an alien species whose introduction and/or spread threaten biological diversity" (see https://www.cbd.int/invasive/terms.shtml).	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

Access and benefit sharing for genetic			Comments
resources	No	Yes	
 Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers? 	LOW RISK	 MODERATE RISK Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports. For plant genetic resources for food and agriculture (PGRFA) falling under the Multilateral System of Access and Benefit-sharing (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions. For genetic resources, other than PGRFA falling under the MLS of the Treaty: 1. Ensure that, subject to domestic access and benefit-sharing legislation or other regulatory requirements, prior informed consent has been granted by the country providing the genetic resources in accordance with the Convention on Biological Diversity, unless otherwise determined by that country; and 2. Ensure that benefits arising from the utilization of the genetic resources as well as subsequent applications and commercialization are shared in a fair and equitable way with the country providing the genetic resources that is the country of origin of the resources in accordance with the Convention on Biological Diversity; and 	

Access and benefit sharing for genetic			Comments
resources	No	Yes	
		3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of indigenous and local communities is obtained for access to genetic resources where the indigenous and local communities have the established right to grant such resources; and	
		4. Ensure that, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over the genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms.	
		For traditional knowledge associated with genetic resources that is held by indigenous and local communities:	
		1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established; and	
		2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with indigenous and local communities holding such knowledge.	
		Ensure that the project is aligned with the Elements to Facilitate Domestic Implementation of Access and Benefit Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case	

SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

	Introduce new crops and varieties	No	Yes	Comments
3.1	Would this project Introduce crops and varieties previously not grown?	LOW RISK	 MODERATE RISK Follow appropriate phytosanitary protocols in accordance with IPPC Take measures to ensure that displaced varieties and/or crops, if any, are included in the national or international <i>ex situ</i> conservation programmes 	

	Provision of seeds and planting materials		No	Yes	Comments
3.2	Would this project provide seeds/planting material for cultivation?		LOW RISK	PROCEED TO NEXT Q	
	3.2.1	Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	LOW RISK	 MODERATE RISK Avoid undermining local seed & planting material production and supply systems through the use of seed voucher schemes, for instance Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the IPPC Internal clearance from AGPMG is required for all procurement of seeds and planting materials. Clearance from AGPMC is required for chemical treatment of seeds and planting materials Clarify that the seed or planting material can be legally used in the country to which it is being imported 	

			 Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts accordingly. Ensure, according to applicable national laws and/or regulations, that farmers' rights to PGRFA and over associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. Refer to ESS9: Indigenous peoples and cultural heritage. 	
3.2.2	Would this project involve the importing or transfer of seeds and/or planting materials for research and development?	LOW RISK	MODERATE RISK Ensure compliance with Access and Benefit Sharing norms as stipulated in the International Treaty on Plant Genetic Resources for Food and Agriculture and the Nagoya Protocol of the Convention on Biodiversity as may be applicable. Refer also to ESS2: Biodiversity, Ecosystems and Natural Habitats.	

	Modern biotechnologies and the deployment of their products in crop production	No	Yes	Comments
3.3	Would this project supply or use modern plant biotechnologies and their products?	LOW RISK	 MODERATE RISK Adhere to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity to ensure the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. Adhere to biosafety requirements in the handling of Genetically Modified Organisms (GMOs) or Living Modified Organisms (LMOs) according to national legislation or⁵²⁷ Take measures to prevent geneflow from the introduced varieties to existing ones and/or wild relatives 	

⁵²⁷ Food and Agriculture Organization of the United Nations. 2011. Biosafety Resource Book. Rome, http://www.fao.org/docrep/014/i1905e/i1905e00.htm

	Planted forests	No	Yes	Comments
3.4	Would this project establish or manage planted forests?	LOW RISK	 MODERATE RISK Adhere to existing national forest policies, forest programmes or equivalent strategies. The observance of principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests suffice for indigenous forests but must be read in full compliance with ESS 9- Indigenous People and Cultural Heritage. Planners and managers must incorporate conservation of biological diversity as fundamental in their planning, management, utilization and monitoring of planted forest resources. In order to reduce the environmental risk, incidence and impact of abiotic and biotic damaging agents and to maintain and improve planted forest health and productivity, FAO will work together with stakeholders to develop and derive appropriate and efficient response options in planted forest management. 	

SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE

		troduce new species/breeds and change in the oduction system of locally adapted breeds	No	Yes	Comments
4	.1 ad	ould this project introduce non-native or non-locally lapted species, breeds, genotypes or other genetic aterial to an area or production system?	LOW RISK	PROCEED TO NEXT Q	
	4.1	 Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds and can monitor production performance? 	CANNOT PROCEED	LOW RISK	
	4.1	 Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome set manipulation, hybridization, genome editing or gene transfer and/or introduce or use experimental genetic 	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Introduce new species/breeds and change in the production system of locally adapted breeds	No	Yes	Comments
	technologies, e.g. genetic engineering and gene transfer, or the products of those technologies?			
4.2	Would this project introduce a non-native or non-locally adapted species or breed for the first time into a country or production system?	LOW RISK	MODERATE RISKA genetic impact assessment should be conducted prior to granting permission to import (cover the animal identification, performance recording and capacity development that allow monitoring of the introduced species/ breeds' productivity, health and economic sustainability over several production cycles)• http://www.fao.org/docrep/0 12/i0970e/i0970e00.htm• ftp://ftp.fao.org/docrep/fao/0 	
4.3	Would this project introduce a non-native or non-locally adapted species or breed, independent whether it already exists in the country?	LOW RISK	 MODERATE RISK If the project imports or promotes species/breeds with higher performance than locally adapted ones, ensure: feed resources, health management, farm management capacity, input supply and farmer organization to allow the new species/breeds to express their genetic potential Follow the OIE terrestrial or aquatic code to ensure the introduced species/breed does not carry different diseases than the local ones Include a health risk assessment and farmer/veterinary capacity 	

	Introduce new species/breeds and change in the production system of locally adapted breeds	No	Yes	Comments
			development in the project to ensure the introduced species/breed do not have different susceptibility to local diseases including ecto-and endo-parasites than the locally adapted/native species/breeds.	
4.4	Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?	MODERATE RISK Introduce a) animal identification and recording mechanism in the project and b) develop new or amend existing livestock policy and National Strategy and Action Plan for AnGR	LOW RISK	

	Collection of wild genetic resources for farming systems	No	Yes	Comment s
4.5	Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for ongrowing?	LOW RISK	MODERATE RISK Guidance to be provided	

	Modification of habitats	No	Yes	Comment s
4.6	Would this project modify the surrounding habitat or production system used by existing genetic resources?	LOW RISK	MODERATE RISK Guidance to be provided	

4.7	Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?		internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?		LOW RISK	MODERATE RISK Guidance to be provided
4.8	R	Would this project block or create migration routes for aquatic species?	LOW RISK	MODERATE RISK Guidance to be provided		
4.9	AQGR	Would this project change the water quality and quantity in the project area or areas connected to it?	LOW RISK	MODERATE RISK Guidance to be provided		
4.10	disrupt habitats or migration routes and the genetic structure of valuable or locally adapted		LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.		
4.11	species/stocks/breeds? Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?		LOW RISK	MODERATE RISK Guidance to be provided		

SAFEGUARD 5 PEST AND PESTICIDES MANAGEMENT

	Supply of pesticides by FAO	No	Yes	Comments
5.1	Would this project procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	LOW RISK	 MODERATE RISK Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical/cultural/physical or biological pest control tools in favour of synthetic chemicals; and preventive measures and monitoring, 	

	Supply of pesticides by FAO	No	Yes	Comments
			 When no viable alternative to the use of chemical pesticides exists, the selection and procurement of pesticides is subject to an internal clearance procedure http://www.fao.org/fileadmin/templates/agphome/documents/Pests Pesticides/Code/E_SS5 pesticide checklist.pdf The criteria specified in FAO's ESM Guidelines under ESS5 must be adhered to and should be included or referenced in the project document. If large volumes (above 1,000 litres of kg) of pesticides will be supplied or used throughout the duration of the project, a Pest Management Plan must be prepared to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. It must be clarified, which person(s) within (executing) involved institution/s, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements. 	
5.2	Would this project provide seeds or other materials treated with pesticides (in the field and/or in storage)?	LOW RISK	MODERATE RISKMODERATE RISKThe use of chemical pesticides for seed treatment or storage ofharvested produce is subject to an internal clearance procedure[http://www.fao.org/fileadmin/templates/agphome/documents/PestsPesticides/Code/E SS5 pesticide checklist.pdfThe criteria specifiedin FAO's ESM Guidelines under ESS5 for both pesticide supply and seedtreatment must be adhered to and should be included or referenced inthe project document.	
5.3	Would this project provide inputs to farmers directly or through voucher schemes?	LOW RISK	 MODERATE RISK FAO projects must not be responsible for exposing people or the environment to risks from pesticides. The types and quantities of pesticides and the associated application and protective equipment that users of a voucher scheme are provided with must always comply with the conditions laid out in ESS5 and be subject to the internal clearance procedure [link]. These must be included or referenced in the project document. 	

	Supply of pesticides by FAO	No	Yes	Comments
			• Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical or biological pest control tools in favour of synthetic chemicals	
5.4	Would this project lead to increased use of pesticides through intensification or expansion of production?	LOW RISK	MODERATE RISK Encourage stakeholders to develop a Pest Management Plan to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. This should be part of the sustainability plan for the project to prevent or mitigate other adverse environmental and social impacts resulting from production intensification.	
5.5	Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT

		No	Yes	Comments
6.1	Would this removal* be voluntary? *temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods	CANNOT PROCEED	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 7 DECENT WORK

		No	Yes	Comments
7.1	Would this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

		No	Yes	Comments
7.2	Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels "working poverty"?	LOW RISK	MODERATE RISK Take action to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Decent work and productive employment should appear among the priorities of the project or, alternatively, the project should establish synergies with specific employment and social protection programmes e.g. favouring access to some social protection scheme or form of social insurance. Specific measures and mechanisms should be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers such as small-scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with a special attention to women and youth who are predominantly found in these employment statuses. An age- and gender-sensitive social value chain analysis or livelihoods/employment assessment is needed for large-scale projects.	
7.3	Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of unsustainably ageing agriculture and food systems by integrating specific measures to support youth empowerment and employment in agriculture. A youth livelihoods/employment assessment is needed. Complementary measures should be included aiming at training youth, engaging them and their associations in the value chain, facilitating their access to productive resources, credit and markets, and stimulating youth- friendly business development services.	
7.4	Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and wages, less representation and voice in	LOW RISK	MODERATE RISK Take action to anticipate likely risk of socially unsustainable agriculture and food systems by integrating specific measures to reduce gender inequalities and promote rural women's social and economic empowerment. A specific social value chain analysis or livelihoods/employment assessment is needed for large-scale projects. Facilitation should be provided for women of all ages to access productive resources (including land), credit, markets and marketing channels, education and TVET, technology, collective action or mentorship. Provisions for maternity protection, including child care	

		No	Yes	Comments
	producers' and workers' organizations, more precarious		facilities, should be foreseen to favour women participation and anticipate potential negative effects on child labour, increased workloads	
	contracts and higher informality rates, etc.)		for women, and health related risks for pregnant and breastfeeding women.	
7.5	Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	LOW RISK	MODERATE RISK Take action to anticipate potential discrimination against migrant workers, and to ensure their rights are adequately protected, with specific attention to different groups like youth, women and men.	

		No	Yes	Comments
7.6	Would this project directly employ workers?	LOW RISK	MODERATE RISK FAO projects will supposedly guarantee employees' rights as per UN/FAO standards as regards information on workers' rights, regularity of payments, etc. Decisions relating to the recruitment of project workers are supposed to follow standard UN practices and therefore not be made on the basis of personal characteristics unrelated to inherent job requirements. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, etc.	
7.7	Would this project involve sub- contracting?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of perpetuating inequality and labour rights violations by introducing complementary measures. FAO projects involving sub- contracting should promote, to the extent possible, subcontracting to local entrepreneurs – particularly to rural women and youth – to maximize employment creation under decent working conditions. Also, FAO should monitor and eventually support contractors to fulfil the standards of performance and quality, taking into account national and international social and labour standards.	

		No	Yes	Comments
7.8	Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks ⁵²⁸ ?	LOW RISK	MODERATE RISK Take action to anticipate likely OSH risks by introducing complementary provisions on OSH within the project. Project should ensure all workers' safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. For example, by undertaking a simple health and safety risk assessment, and supporting implementation of the identified risk control measures. Awareness raising and capacity development activities on the needed gender-responsive OSH measures should be included in project design to ensure workers' safety and health, including for informal workers. Complementary measures can include measures to reduce risks and protect workers, as well as children working or playing on the farm, such as alternatives to pesticides, improved handling and storage of pesticides, etc. Specific provisions for OSH for pregnant and breastfeeding women should be introduced. FAO will undertake periodic inspections and a multistakeholder mechanism for monitoring should be put in place.	
7.9	Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

		No	Yes	Comments
7.10	Would this project foresee that children <u>below</u> the nationally- defined minimum employment age (usually 14 or 15 years old) will be	LOW RISK	CANNOT PROCEED	

⁵²⁸ Major OSH risks in agriculture include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects.

		No	Yes	Comments
	involved in project-supported activities?			
7.11	Would this project foresee that children <u>above</u> the nationally- defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of engaging young people aged 14- 17 in child labour ⁵²⁹ by changing design or introducing complementary measures. For children of 14 to 17 years, the possibility to complement education with skills-training and work is certainly important for facilitating their integration in the rural labour market. Yet, children under the age of 18 should not be engaged in work-related activities in connection with the project in a manner that is likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Where children under the age of 18 may be engaged in work- related activities in connection with the project, an appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work, in addition to the other requirement of this ESS. Specific protection measures should be undertaken to prevent any form of sexual harassment or exploitation at work place (including on the way to and from), particularly those more vulnerable, i.e. girls.	
7.12	Would this project operate in a value chain where there have been reports of child labour?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

⁵²⁹ Child labour is defined as work that is inappropriate for a child's age, affects children's education, or is likely to harm their health, safety or morals. Child labour refers to working children below the nationally-defined minimum employment age, or children of any age engaging in hazardous work. Hazardous work is work that is likely to harm the health, safety or morals of a child. This work is dangerous or occurs under unhealthy conditions that could result in a child being killed, or injured and/or made ill as a consequence of poor health and safety standards and working arrangements. Some injuries or ill health may result in permanent disability. Countries that have ratified ILO Convention No.182 are obligated to develop National lists of hazardous child labour under Article 4.

			No	Yes	Comments
7	.13	Would this project operate in a value chain or sector where there have been reports of forced labour ⁵³⁰ ?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 8 GENDER EQUALITY

		No	Yes	Comments
8.1	Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of perpetuating or reinforcing inequality by conducting a gender analysis to identify specific measures to avoid doing harm, provide equal opportunities to men and women, and promote the empowerment of women and girls.	
8.2	Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of socially unsustainable agriculture practices and food systems by conducting a gender analysis to identify the specific needs and priorities of men and women, and the constraints they may face to fully participate in or benefit from project activities, and design specific measures to ensure women and men have equitable access to productive resources and inputs.	

SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE

⁵³⁰ Forced labour is employed, consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. It includes men, women and children in situations of debt bondage, suffering slavery-like conditions or who have been trafficked. "In many countries, agricultural work is largely informal, and legal protection of workers is weak. In South Asia, there is still evidence of bonded labour in agriculture, resulting in labour arrangements where landless workers are trapped into exploitative and coercive working conditions in exchange for a loan. The low wages associated with high interest rates make it quite difficult for whole families to escape this vicious circle. In Africa, the traditional forms of "vestiges of slavery" are still prevalent in some countries, leading to situations where whole families (adults and children, men and women) are forced to work the fields of landowners in exchange for food and housing. In Latin America, the case of workers recruited in poor areas and sent to work on plantations or in logging camps has been widely documented by national inspection services and other actors." (ILO, Profits and poverty: the economics of forced labour / International Labour Office. - Geneva: ILO, 2014)

			No	Yes	Comments
9.1	Are there <i>indigenous peoples</i> * living <i>outside the project area</i> ** where activities will take place? ⁵³¹ ?		LOW RISK	GO TO NEXT QUESTION	
	9.1.1	Do the project activities influence the Indigenous Peoples living outside the project area?	LOW RISK	MODERATE RISK A Free, Prior and Informed Consent Process is required Project activities should outline actions to address and mitigate any potential impact Please contact the ESM/OPCA unit for further guidance.	
9.2	Are there indigenous peoples living in the project area where activities will take place?		LOW RISK	MODERATE RISK A Free Prior and Informed Consent process is required. If the project is for indigenous peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process. Please contact the ESM/OPCA unit for further guidance. In cases where the project is for both, indigenous and non- indigenous peoples, an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact. Please contact ESM/OPCA unit for further guidance. A Free, Prior and Informed Consent Process is required	
9.3	Would this project adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical</i> * and <i>non-physical or</i> <i>intangible</i> **) inside and/or outside the project area?		LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

^{*} FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).

^{**} The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question

		No	Yes	Comments
	*Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater. **Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"			
9.4	Would this project be located in an area where cultural resources exist?	LOW RISK	MODERATE RISK To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to: a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and b) through collaboration and communication with indigenous peoples' own governance institutions/leadership, verifying the probability of the existence of sites/ intangible cultural heritage that are significant to indigenous peoples. In cases where there is a high chance of encountering physical cultural resources, the bidding documents and contract for any civil works must refer to the need to include recovery of "chance findings" in line with national procedures and rules.	

ANNEX 6: GUIDELINES ON ESMP PREPARATION

The ESMP should be formulated in such a way that it is easy to use. References within the plan should be clearly and readily identifiable. Also, the main text of the ESMP needs to be kept as clear and concise as possible, with detailed information relegated to annexes. The ESMP should identify linkages to other relevant plans relating to the project, such as plans dealing with resettlement or indigenous peoples'/ethnic minority groups' issues. The following aspects should typically be addressed within ESMPs:

- 1. Summary of the potential impacts of the proposed project: The predicted adverse environmental and social impacts for which mitigation is required should be identified and briefly summarized. Cross-referencing to the ESIA report or other documentation is recommended.
- 2. **Description of the recommended mitigation measures:** Each mitigation measure should be briefly described with reference to the impact to which it relates and the conditions under which it is required (for example, continuously or in the event of contingencies). These should be accompanied by, or referenced to, project design and operating procedures that elaborate on the technical aspects of implementing the various measures.
- 3. **Description of monitoring and auditing program:** The monitoring and auditing programs should clearly indicate the linkages between impacts identified in the ESIA report, measurement indicators, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
- 4. **Institutional arrangements:** Responsibilities for mitigation and monitoring should be clearly defined, including arrangements for co-ordination between the various actors responsible for mitigation.
- 5. **Capacity Building and Training Programmes:** To support timely, effective implementation of the project components and mitigation measures, an assessment and evaluation of the capability of environmental units and other institutions responsible for environmental management is necessary.
- 6. **Implementation schedule and reporting procedures:** The timing, frequency and duration of mitigation measure should be specified in an implementation schedule, showing links with overall project implementation. Procedures to provide information on the progress and results of mitigation and monitoring measures should also be clearly specified.
- 7. **Cost estimates and sources of funds and allocation of responsibilities:** These should be specified for both the initial investment and recurring expenses for implementing all

measures contained in the ESMP, integrated into the total project costs, and factored into loan negotiations, etc.

Table XX, below, provides a template for the preparation of an ESMP.

Subproject Activity	Potential E&S Impacts	Proposed Mitigation Measures (including legislation & regulations)	Responsible Institutions (including enforcement & coordination)	Implementation Schedule for Mitigation Measures	Cost Estimates	Comments (e.g. secondary impacts)

Table XX: Template for ESMP Preparation.

Contents of an Environmental and Social Management Plan (ESMP):

This is the action-oriented part of an ESIA. The effective implementation of ESIA findings and recommendations hinges largely on the preparation and implementation of appropriate ESMP. It should thus include, at least, the following:

- Outline of major positive and negative impacts;
- Description of mitigation/enhancement measures;
- Schedules of implementation;
- Cost estimates;
- 4 Assigned responsibility for implementation (by name or position of responsibility);
- Surveillance and monitoring scheme with defined performance benchmarks and indicators;
- Contingency plans and impact management strategy & response plans, where necessary;
- 4 Attachment of environmental contract for the implementation of ESMP, where relevant;
- Any institutional and capacity building requirements;
- Summary of the planned community environmental management project(s) where necessary.