**REPUBLIC OF YEMEN**

# YEMEN FOOD SECURITY RESPONSE AND RESILIENCE PROJECT (P176129)

# STAKEHOLDER ENGAGEMENT PLAN (SEP)

*Revised & updated as of 22 October 2021*

**FOOD AGRICULTURE ORGANIZATION (FAO)**
**AND**
**UNITED NATION DEVELOPMENT PROGRAM (UNDP)**
**AND**
**WORLD FOOD PROGRAM (WFP)**

**October 2021**

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## I. CONTEXT

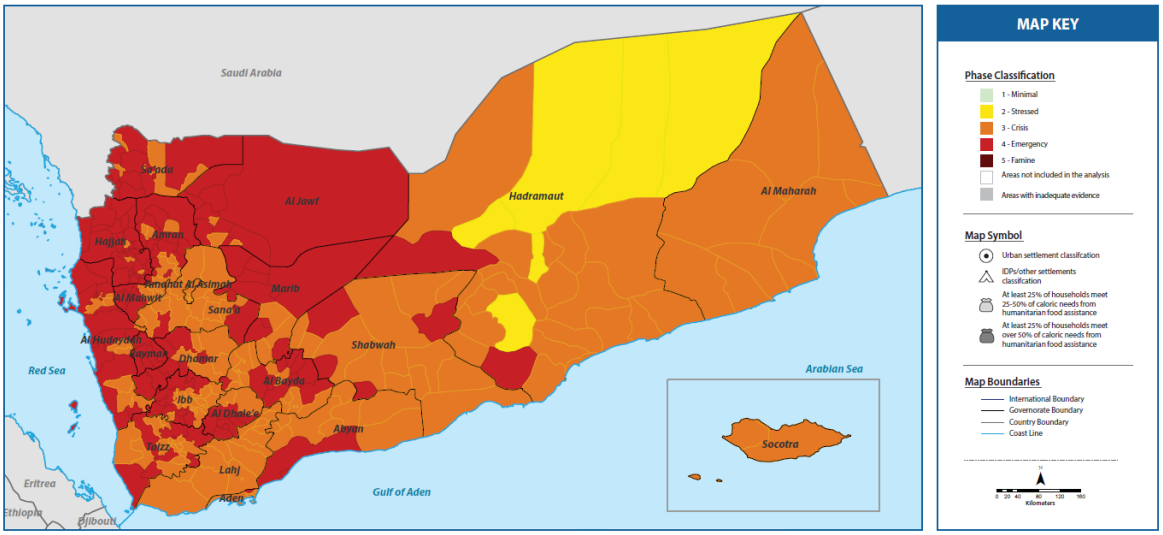
1. Yemen has for long been classified as a low-income, food-deficit country which produces merely ten percent of its food needs. **The protracted conflict has crippled the economy, created an unprecedented humanitarian crisis, which remains the principal driver of food insecurity in Yemen[1].** The cumulative 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 six 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. **The macroeconomic policy environment differs spatially due to the bifurcation of administration between areas of control, and socio-economic conditions have deteriorated throughout 2020, leading to a significant worsening of poverty.** Distortions created by the fragmentation of institutional capacity and the divergent policy decisions between the areas of control have compounded the economic and humanitarian crisis. The dramatic deterioration of conditions in Yemen has translated into an estimated 80% of the population (around 24 million) living below the poverty line, even before the crisis brought about by the COVID-19 pandemic (World Bank 2019). In addition to monetary poverty, up to 80% of households experience overlapping monetary and non-monetary deprivations (World Food Programme 2020). The *Global Report on Food Crises 2020* concluded that "the combined effects of conflict, macroeconomic crisis, climate-related shocks and crop pests, including fall armyworm and desert locusts, were likely to ensure that Yemen remained the world's worst food crisis" in the immediate future.[3]

3. Protracted conflict and the destruction of infrastructure and basic public services coupled with economic decline and pre-existing structural issues such as widespread poverty exposed large segments of the Yemeni population to unprecedented levels of food insecurity and malnutrition. An estimated 13.5 million people, 45 per cent of Yemen's population, are acutely food insecure.[1] That number is projected to increase to 16.2 million, 54 per cent of the population, in the first half of 2021. Of those 16.2 million people, 11 million people will have reached 'crisis' levels of food insecurity, classified as Phase 3 in the Integrated Food Security Phase Classification (IPC); another 5 million people will have reached 'emergency' levels (IPC Phase 4); and 47,000 people will have reached 'catastrophe' or famine-like levels (IPC Phase 5). This is the first return of IPC 5 conditions in Yemen in the last two years. Compared to 2018, the number of districts in IPC Phase 4 conditions will have more than tripled, from 49 to 154, out of 333 in Yemen. This analysis assumes the provision of humanitarian assistance at 50 percent, which humanitarian actors have not yet secured the resources for, moving into 2021.

[1] IPC ACUTE FOOD INSECURITY ANALYSIS OCTOBER 2020 – JUNE 2021, Issued December 2020.
[2] Yemen Socioeconomic Update, Issue 54, November 2020, MOPIC.
[3] World Food Programme, 2020. URL: www.fsinplatform.org/sites/default/files/resources/files/GRFC_2020_ONLINE_200420.pdf.

*Figure 1: Projected Acute Food Insecurity in Yemen, 2021*




4. 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 analysis[4] 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.

5. **Yemen's agriculture meets only an approximate 15-20% of its food needs due to restricted agricultural land and water resources, even though the sector increasingly serves as the main source of income for Yemenis (36.6%) and employment for rural women (87%)**. Despite its economic importance, agricultural productivity is low and access to markets, transportation, and distribution are severely disrupted by the conflict.

6. **Vulnerability to climate change and pest infestations are exacerbating Yemen's dire food insecurity, creating a crisis within a crisis. Several aggravating factors emerged in mid-2020 and are worsening the food security situation such that Yemen faces a crisis on multiple fronts**. Those include: (i) widespread floods; (ii) desert locust invasions; (iii) drastically below-average cereal harvests in 2020; (iv) the SARS-CoV-2 pandemic; and (v) food price increases due to a combination of impacts from COVID-19 and lower food imports. Over 20 million people (or 68% of the total estimated population) are food insecure[5], including a staggering 10 million people at risk of famine. This insecurity is driven by constrained food production, food supply and distribution, and diminishing purchasing power. An estimated 4.3 million people have fled their homes since the start of the conflict, of which 3.3 million remain internally displaced. Hunger, food insecurity and malnutrition are among the most pressing and overwhelming challenges faced by the country at present, at a scale that is not being fully met by national authorities

[4] Yemen: High levels of food insecurity persist | IPC Global Platform (ipcinfo.org)
[5] IPC Phase 2 and above.

and the international development and humanitarian communities. The high dependence on food imports for most households, combined with high food prices and significantly reduced income earning has resulted in low food access.

7. **Already prior to the conflict, women faced structural challenges with inter-generational, systemic poverty.** The conflict has aggravated pre-existing gender inequalities in Yemen. Even before the war, literacy and school enrolment rates were lower for women and girls than they were for men and boys. Many girls are subjected to early marriage and pregnancy. Women and girls suffer restrictions on their movement and employment;[6] women undertake significantly more unpaid care and domestic work than men and are largely excluded from political life, including peace talks. Certain groups, such as women, young people, minorities and marginalized communities, are disadvantaged in terms of land access and land rights; this is particularly the case for daughters and wives because of discriminatory inheritance practices.[7] The impact of the conflict is coupled with high vulnerability to climate shocks and water scarcity. The increased participation of women in the labour force will be key to revitalizing the economy and lowering poverty rates, and the economic empowerment of women is key to addressing the root causes of inequality that limit women's potential.

8. Gender inequality in Yemen is staggering. Yemen ranked 162nd of 162 on the Gender Inequality Index and 153rd of 153 countries in the Global Gender Gap Index from 2015 to 2020, although Yemen's Global Gender Gap Index score improved slightly from 0.484 in 2015 to 0.516 in 2017, it returned to 0.494 in 2020[8]. Likewise, the economic gender gap runs deep. Low female participation and discrimination against women, has dire consequences on economic growth, social cohesion and social mobility. The regional average score on the Economic Participation and Opportunity subindex is 42.5%, In Yemen, the female participation rate of 6.3%, which is the lowest in the world[9]. These results reveal significant gender gaps – to the detriment of women – in economic participation and opportunity, educational attainment, health and survival, and political empowerment.

9. **Stakeholder engagement within this broader country context demands close collaboration with on-ground implementation partners who have proven capability to reach all districts despite conflict and political tensions.** Moreover, it will be particularly important to conduct iterative consultations throughout the project's life cycle with attention to vulnerable populations and groups prone to exclusion, be that for reasons of gender, orientation, age, ability, religious beliefs, and/or ethnicity.

## II. PROJECT DESCRIPTION

10. The objective of the Yemen Food Security Response and Resilience Project is 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)

[6] Brigitte Rohwerder. Institute of Development Studies. 2017. *Conflict and Gender Dynamics in Yemen.*
[7] World Bank. 2013. *Land Tenure for Social and Economic Inclusion in Yemen: Issues and Opportunities.*
[8] Compiled by the World Economic Forum 2015 - 2020.
[9] World Economic Forum, Global Gender Gap Report 2020.

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

11. 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.

12. **Most work will occur under the first three components. The first component** would alleviate immediate food security needs by providing temporary employment through a Cash-for-Work (CFW) programme. Work to repair and restore productive assets, water infrastructure, and degraded lands would improve household incomes and contribute towards re-establishing agricultural production. Moreover, underlying drivers of food insecurity and malnutrition of women will be addressed through targeted trainings for moderately food-insecure women to develop marketable and sustainable skills and entrepreneurship, geared to the needs of the local community and contemporary demands. **The second component** will increase production and sale of nutritious agricultural products through two intervention packages: (i) one which promotes agricultural production for smallholder farmers, livestock producers and fishers; and (ii) one which supports enterprising producers, processors, and traders to scale-up, improve product quality & aggregation, consolidate production, and increase access to local and regional markets with their products.

13. **The third component** would improve the nutritional security of vulnerable rural households by providing targeted nutrition-sensitive agriculture activities and facilitating up-take of appropriate diet and nutrition practices. These targeted activities would especially improve the nutrient intakes pregnant mothers and children under two. They will include a blend of promoting kitchen gardens and backyard production for improved diets, promoting women's rural entrepreneurship for improved nutrition and food security, and providing nutrition assistance to treat and prevent malnutrition for pregnant and lactating women and girls and children under five. Linkages between activities will be established, as well as with safety nets in the area. **The fourth component** tackles three main areas requiring capacity development and includes: (i) supporting the development of an evidence-based Food Security Preparedness Plan (FSPP) in the context of a larger roadmap for agriculture-sector development and related investment plans; (ii) establishing a satellite-based Earth Observation (EO) crop and pasture monitoring and early warning system; and (iii) strengthening agriculture extension services; and (iv) piloting alternative agricultural production technologies. **The fifth component** will address basic costs and needs pertaining to project management, including the environmental and social safeguards, monitoring & evaluation requirements, implementation support and financial management/procurement.

14. The total funding will be USD 127.00 million, of which USD 100 million will come from International Development Assistance (IDA) and 27 million will come from Global Agriculture and Food Security Program (GAFSP) financing. While this project was originally proposed in 2019 as the "Strengthening Agriculture Productivity and Resilience Project Plus (SAPREP+)", to be funded by the GAFSP for USD 30 million, it was redesigned as further funds became available to the Yemen Food Security Response and Resilience Project.

## III. ENVIRONMENTAL & SOCIAL IMPACTS AND INHERENT RISKS

15. **Methodology:** Project-related and inherent risks were determined by: (i) screening the project activities against the World Bank's Environmental and Social Framework; (ii) considering the findings of the desk review on risks conducted during the formation of the SAPREP+ project (which then developed into this project), and (iii) consulting WFP's internal risk analysis which is based on protecting and responding to risks associated with hunger, taking into account the specific context of Yemen and the commitment to uphold principles of "do no harm", inclusivity, and equity.[10]

16. The initial SAPREP+ review identified patterns of systemic issues which could increase risk to the project, its personnel, or beneficiaries. This was then supplemented by the latest security and political risk reviews from recent months. Finally, field staff from the original SAPREP project and other counterparts on the ground conducted site observations and interviews with key informants to better understand the latest conditions which could affect the success of this project. Lists of these consultations are included under Annex 1. As part of the World Bank's E&S procedures, and given that the implementing agencies have agreed to take a common UN-approach to the project's safeguards, the precursor risk analysis will be updated after the eligible target areas have been identified, with an initial risk assessment (multi-dimensional) to inform decision making and maximize the probability of success.

17. **Project Impacts:** This project is expected to have positive impacts in relation to food security, household and agricultural resilience, biological diversity, nutritional wellbeing, economic livelihood with a focus on improving female entrepreneurship, and built capacity of national institutions. Potential negative impacts are limited, expected to be minor-to-moderate in nature, temporary, and largely mitigatable. With the exception of a cross-cutting risk of inequitable engagement/unfair benefits distribution (see details following the component breakdown), which is mitigated in part by this Stakeholder Engagement Plan (SEP) and the careful selection of project beneficiaries/participants, potential negative impacts resulting from the project are listed and disaggregated below by component. These impacts may include:

- **Component 1:** environmental and community health and safety risks, and occupational health and safety (OHS) risks related to small rehabilitation works. Environmental risks could include waste (e.g. solid waste) and wastewater generation and accumulation in the environment; dust, noise, and dangers from operating heavy machinery; and impacts from overuse, mismanagement, and deterioation of soils and land resources. Social risks,

[10] The WFP protection and accountability policy commits to preventing and responding to protection risks associated with hunger in all contexts. Similar to the World Bank's ESF, this ensures that WFP takes the necessary measures to mitigate any risks of unintended harm that might arise during any of the organizations/project's interventions which may otherwise exacerbate vulnerabilities to both physical and psychosocial risks. In addition, WFP maintains a country risk register, to ensure to consistently and continuously horizon-scan for known or new risks, to identify mitigating actions.

aside from cross-cutting risks listed after the component breakdown (e.g. gender blindness, Gender Based Violence (GBV), sexual exploitation and abuse (SEA), discrimination against women/children/elderly/disabled persons during project beneficiary selection), may include impacts related to child labour and lack of child protections prompted by the urgent income needs of poor families. Community health and safety risks from the activites/potential influx of temporary labour include increased risk of disease transmission (e.g. COVID-19, cholera infections, and sexually transmitted diseases) and possible explosions due to remnants of war or the vandalization /destruction of public services infrastructure. If temporary worker camps are established, there may be increased risk of Gender Based Violence (GBV) and sexual exploitation and abuse (SEA) between temporary workers and existing community members. Mitigation of these aforementioned risks will require adequate training on OHS, waste disposal and management, use of personal protective equipment (PPE), safe transportation and use of machinery, and risks of disease transmission. It will also require training of stakeholders and communities on the risks pertaining to child labour, gender discrimination, GBV/SEA and the various referral pathways and GRMs associated with the project to prevent and mitigate such risks. In addition to the project-level GRM, there will be a GRM pertaining to labourers (if needed for a subproject) and a separate GRM to address any instances of GBV/SEA.

- **Component 2:** environmental and community health safety risks relating to pesticide use, storage and disposal; biohazardous waste from livestock; and/or agricultural runoff. The project will be compatible with and complement efforts of the Desert Locust Project and other agriculture-focused projects in the area. To the best extent possible, integrated pest management and biopesticides will be used to reduce ecological impacts. Training will be conducted on pest management, the correct use, storage, and disposal of pesticides and/or biohazardous waste, and use of PPE. As a mitigation measure, a simplified pest management plan will be prepared and, if needed, a waste and wastewater management plan.

- **Component 3:** social risks associated with working with a high number of vulnerable women and children. This includes gender risks, exclusion risks, OHS/labour risks within the nutrition clinics, security risks, and GBV/SEA.

- **Component 4:** minor environmental (e.g. noise, generation of dust, solid wastes) and OHS impacts may arise during the construction of hydroponics/aquaponics envisioned under this component.

18. Some components carry a cross-cutting risk of conflict regarding land use/land tenure rights and inequitable engagement/unfair benefits distribution. Negative impacts may be felt if there is mistargeting, lack of transparency, and favouritism in screening of recipients for the CFW program under component one; selection of beneficiaries for the packaged interventions under component two; households to be trained under component three; and/or areas of the government to be engaged under component four. Negative social impacts are a risk if there is discrimination of marginalised groups, particularly during conflict and/or social disputes where adequate consideration is not given to different stakeholders' needs and interests. Discrimination during beneficiary selection and/or conflict resolution may result from gender blindness and discounting of women/children/elderly/disabled persons. Discrimination may also present as Gender Based Violence (GBV) and sexual exploitation and abuse (SEA), an inherent risk in war

and post-war zones. To mitigate these cross-cutting issues, the SEP will be used to ensure transparency of selection criteria and overall process. A GRM will also be available for any project affected persons who feel they have been negatively impacted or excluded.

**Selection criteria:** The primary beneficiaries of the proposed project are poor rural households most affected by food insecurity in the targeted governorates. Within the targeted governorates (the targeting will be done on the basis of the IPC classification), district-level project sites will be selected based on the food insecurity and malnutrition levels. Districts with the highest level of food insecurity and malnutrition will be prioritized. The presence of aggravating factors (floods, impact of COVID19-related restrictions and desert locust) will be one of the selection criteria. The other criteria will include agriculture as a major source of livelihood (proportion of rural population), poverty level of the household, and whether the household has benefitted from other relevant programs in agriculture and livelihood support/food security[11]. The criteria will be detailed in the Project Operations Manual (POM).

19. **Inherent Risks:** Due to the existing conflict situation, there are inherent risks pertaining to the safety of those involved with the project and their ability to carry out tasks or receive benefits in areas of immediate conflict. Inherent risks associated with war may also include Gender Based Violence (GBV), sexual exploitation and abuse (SEA); Improvised Explosive Devices (IEDs) and/or landmines and unexploded ordinances (UXOs). The global COVID-19 pandemic also poses a risk, as travel and/or activities requiring close-proximity work may increase transmission rates if those involved do not follow the guidelines on social distancing and personal protective equipment (PPE).

## IV. RATIONALE AND OBJECTIVE OF THE STAKEHOLDER ENGAGEMENT PLAN

20. The proposed Project is being prepared under the World Bank's Environment and Social Framework (ESF). As per the Environmental and Social Standard 10 (ESS10): Stakeholders Engagement and Information Disclosure, implementing agencies should provide stakeholders with timely, relevant, understandable and accessible information, and consult with them in a culturally appropriate manner which is free of manipulation, interference, coercion, discrimination and intimidation.

21. This SEP recognizes the importance of open and transparent engagement between the Recipient 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 significantly contribute to successful project design and implementation. Stakeholder engagement is an inclusive process conducted throughout the project life cycle. When properly designed and implemented, it supports the development of strong, constructive, and responsive relationships that are important for successful management of a project's environmental and social risks.

22. The overall objective of this SEP is to define a technically and culturally appropriate plan of action for stakeholder engagement for public consultation, equal participation, and information disclosure throughout the project cycle. The SEP outlines the ways in which the project team will communicate with stakeholders and includes a Grievance Mechanism (GM) through which people can raise concerns, provide feedback, or make complaints about project activities.

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

23. The main goals of the SEP are to ensure the project's potential stakeholders: **(i) have timely access to key project information** such as project's goal, activities, potential project impact, potential stakeholders, including key consultation milestones; **(ii) know when and where consultation opportunities are available** for them to participate; and **(iii) participate in consultation and provide meaningful feedback** to further inform the project design and implementation process. The SEP also provides a brief description of the projects grievance redress mechanisms to be applied for any grievances relating to project investments.

24. The involvement of diverse stakeholder groups is essential to the success of the project and ensuring smooth collaboration between project staff and local communities, including the most vulnerable groups. As such, **the SEP aims to:**

- Establish a systematic approach to stakeholder engagement that helps the Recipient and implementation partners to identify stakeholders and build and maintain a constructive relationship with those stakeholders (particularly for the project-affected peoples) throughout the project cycle;
- Assess the level of stakeholder interest and support for the project during preparation and implementation to ensure their views inform project design and assessment of environmental and social safeguards performance;
- 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;
- Ensure that project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format; and
- Provide project-affected parties with accessible and inclusive means to raise issues and grievances, opt-out, and allow Recipients to respond to and manage such grievances and requests.

25. As such, the stakeholder engagement process provides a continuous feedback loop informing the project and adapting it to stakeholder needs as required. It is based on an understanding of the channels of communication that are most used and trusted by the affected populations, including in the current context of active conflict and displacement, and provides recommendations for a more informed approach to community engagement.

## V. PRINCIPLES OF STAKEHOLDER ENGAGEMENT

26. Stakeholder engagement under the project will abide by the following principles:

- **Inclusivity and sensitivity:** the approach used to engage stakeholders and method(s) of communication will be adapted to each group in a manner respectful of and sensitive to their unique needs. Engagement will be tailored based on information from the stakeholder identification and analysis to ensure inclusivity. The goal is to support better communication and effective relationship building. Access to information will not just be equal; it will be equitable, with particular attention given to vulnerable groups including women, elderly, youth, ethnic/religious minorities, and disabled individuals.

- **Openness and life-cycle approach:** public consultations for the project will be iterative in nature and continue for the entirety of the project lifecycle, from preparation through implementation. Stakeholder engagement will be meaningful and free from manipulation, coercion, and intimidation.

- **Meaningful, informed participation and feedback:** information will be provided and widely distributed among all stakeholders an appropriate and understandable format (e.g. local language, in-person, telecommunications, etc.). Information must be shared in a timely, relevant, understandable, and accessible way, with opportunities for stakeholders to raise concerns and offering enough time to ensure that feedback is taken into consideration during decision making.

- **Gender sensitivity and social inclusion:** Consultations will be organized during the project cycle, to ensure that both women, men, people with disability have equal access and active participation to the project activities. The project partners will hold separate meetings and focus group discussions for women and men with facilitators from the same gender as the participants to guarantee their active engagement and provide special support to facilitate access of caregivers.

- **Sustainability and resilience:** The project partners will assess with affected and interested parties concerns on sustainability of project's activities and outcomes beyond the project period. The project's outputs will strengthen the stakeholder's resilience and adaptation in addressing the social, environmental, and economic vulnerabilities and hazards.

## VI. PROCESS FOR STAKEHOLDER ENGAGEMENT

27. The process for stakeholder engagement involves the following steps:

- **STEP 1:** Stakeholder identification and analysis;
- **STEP 2:** Engagement during project preparation *(this will contribute to a stakeholder needs assessment, selection of preferred methods of communication, further project refinement, and development of a project-level GRM)*;
- **STEP 3:** Engagement during project implementation *(this includes ongoing monitoring and reporting and the establishment of a feedback-loop whereby the project is continually adapted based on evolving community needs)*.

28. An overview of the Grievance Redress Mechanism, monitoring & reporting, and Information disclosure and consultation plans are detailed later in this SEP.

### STEP 1: Stakeholder Identification and Analysis

29. Identifying stakeholders who will be involved in project planning and implementation is an important step. By engaging the right stakeholders at the right time, the project can ensure that timely feedback from appropriate project stakeholders can be obtained. When combined with appropriate methods of consultation, this ensures that consultations facilitate meaningful feedback. In this step,

potential key stakeholders are identified. More stakeholders will be added as the project develops throughout preparation and implementation.

30. To ensure important key stakeholders are identified for a meaningful consultation process, identification of potential stakeholders is based on the types of project investments to be carried out. For example, rehabilitation and construction works under the cash-for-work component; value chain development with small producers; development of policies to address nutrition and food insecurity; training on good agricultural practices and dietary diversity; etc. The types of project activities under a given investment (re: Component/sub-component) will determine the nature of relationship with stakeholders involved in a particular investment. Identification and analysis based on project investment type helps to determine the level of relationship stakeholders have to the project's objectives and expected outcomes. Stakeholders may be directly or indirectly affected by a project. Moreover, they may have interests in a project and/or the ability to influence its outcome, either positively or negatively. Conducting a thorough stakeholder identification and analysis is a useful tool for managing communication between the project team and stakeholders throughout the project cycle. Project stakeholders are defined as individuals, groups, or other entities who:

(i) Are impacted or likely to be impacted directly or indirectly, positively or adversely, by the Project (also known as *'affected parties'*); and,
(ii) May have an interest in the Project (*'interested parties'*). These include individuals or groups whose interests may be affected by the Project and who have the potential to influence the Project outcomes in any way.

31. Cooperation and negotiation with stakeholders is required throughout the project cycle. To facilitate this, persons within stakeholder groups who act as legitimate representatives of their respective group and are entrusted by their fellow group members will be identified during the process of engagement. These "gatekeepers" or community representatives may provide helpful insight into the local settings and act both as a (i) means for dissemination of the Project information, and (ii) primary communication/liaison link between the Project, targeted communities, and their established networks. Legitimacy of the community representatives/gatekeepers can be verified by talking informally to a random sample of community members and heeding their views on who can be representing their interests in the most effective way.

32. Stakeholders of this project may include affected parties, interested parties, and vulnerable and disadvantaged groups, as discussed below.

33. **Affected parties:** Affected parties are those who are directly influenced (actually or potentially) by the project and/or have been identified as most susceptible to potential risks and impacts associated with the project, thus necessitating close engagement. These may include local community members and other parties who are subject to direct impacts from the Project. Specifically, the following individuals and groups fall within this category:

- Farmers, pastoralist and agro-pastoralists communities;
- Smallholder farmers, livestock producers, and fishers;
- PAPs affected by land acquisition, voluntary land donation, and/or permanent or temporary loss of livelihoods
- Rural populations at large who have lost crops, livestock, and livelihoods;

- Community workers;
- Enterprising producers, processors, and traders;
- IDPs (Internally displaced people);
- Households experiencing extreme malnutrition and/or food insecurity, particularly children and women/elderly-led households, and/or pregnant and lactating women and girls;
- Health workers
- Field officers involved with agricultural extension;
- Community Animal Health Workers (CAHWs);
- Water Users Associations (WUA);
- Contracted workers, consultants, scouts, vehicle and/or aircraft operators;
- Cooperating local NGOs.

34. **Other interested parties:** These are considered to have either high interest but low mandate or high mandate but low interest. Other interested parties of the projects' stakeholders include:

- Politicians (leadership in both north and south Yemen);
- National institutions which overlap with the work of, or contribute towards the efforts of, the Ministry of Agriculture and Irrigation (MAI);
- Tribal authorities;
- Ministry of Water and Environment (MWE);
- Ministry of Public Health and Population (MoPHP);
- Ministry of Education for numeracy and literacy curriculum;
- Ministry of Technical Education and Vocational Training.
- Agriculture Research Institutions;
- International Labor Organization;
- Social Fund for Development (SFD) (and SMEP) as an implementation partner;
- Public Works Project (PWP) as an implementation partner;
- FAO, UNDP, and WFP as main implementing agencies;
- UN sister-agencies for Nutrition: WHO and UNICEF;
- IFPRI and ICARDA as collaborators;
- Cooperating international NGOs;
- Other local NGOs (not directly cooperating);
- The public at large.

35. **Disadvantaged/vulnerable individuals or groups:** Disadvantaged or vulnerable individuals or groups are those peoples or groups highly vulnerable to potential project impacts and often do not have a voice to express their concerns or understand the impact and risk of the project. They may be disproportionately be impacted or further disadvantaged by the project as compared with any other groups due to their vulnerable status, and usually require special arrangements to ensure their equal (and equitable) representation in the consultation and decision-making process associated with the project. Their vulnerability may stem from their origin, gender, age, health condition, disability, economic deficiency and financial insecurity, disadvantaged status in the community (e.g. minority groups), dependence on other individuals or natural resources, etc. WFP's hotline provides equal and meaningful access to all, including the elderly and persons living with disabilities.

36. Awareness raising and stakeholder engagement with disadvantaged or vulnerable individuals or groups on the project must consider such groups or individuals' sensitivities, concerns, and cultural differences to ensure a full understanding of project activities and benefits. Engagement with these vulnerable groups and individuals often requires the application of specific measures and assistance aimed at the facilitation of their participation in the project related decision making so that their awareness of and input to the overall process are commensurate to those of the other stakeholders.

37. Within the proposed Project, the vulnerable or disadvantaged groups may include, but are not limited to, the following:

- Historically underserved and disadvantaged communities in coastal plains along the Red Sea and Gulf of Aden, western interior parts of the country, and central and eastern parts of the country;
- Households reliant on agricultural production activities who are already facing food insecurity;
- Elderly people in hard-hit areas and facing food shortages;
- Female-headed and elderly-headed households;
- Divorced, abandoned, and widowed women;
- Children and youth-headed households;
- Internally displaced persons (IDPs);
- People with disabilities;
- Poor people, including ex-pastoralists;
- Illiterate persons;
- Low-income families/extreme poor
- Women, particularly women-headed households or single mothers with underage children
- The unemployed persons

38. Vulnerable groups within the communities affected by the project will be further confirmed and consulted during Environmental and Social Assessment preparation through dedicated means, as appropriate.

## STEP 2: Stakeholder engagement during project preparation

39. Given that this project was designed in the context of a food security emergency and global COVID-19 pandemic (complete with government restrictions on gatherings of people), the preliminary SEP submitted in March 2021 had been developed to provide the initial foundations for a more complete SEP to be submitted two months following the project effectiveness date. As the project subsequently became effective on 7 August 2021, this updated SEP summarizes the iterative consultations which commenced for the project and its related safeguards documents, and outlines continued plans for further consultation during implementation. Initial stakeholder engagement has involved consultations between the FAO, UNDP, SFD, PWP, and the MAI, and their respective findings on stakeholder needs, preferred methods of communication, and key obstacles based on their ongoing works within the potential project areas (a summary of these early-stage engagement activities can be found in Annex 1). Subsequent stakeholder engagement has involved reaching out to communities and relevant stakeholders to consult on each of the safeguards documents (e.g. ESMF, PMP, SMP, LMP, RF, etc.) This first updated SEP draws from lessons-learned from FAO and UNDP during the earlier SAPREP and YECRP projects and from design-stage insights for projects like the Desert Locust Project, as well as recommendations from the SFD and PWP's extensive on-ground network, discussed below. Further updates to this SEP will occur anytime if/when the project design is amended. This SEP indicates:

- Types of Stakeholders to be consulted
- Anticipated Issues and Interests
- Stages of Involvement
- Methods of Involvement
- Proposed Communications Methods
- Information Disclosure
- Responsible authority/institution

40. UNDP's and its partners have generated great experience and best practices in engaging with the stakeholders effectively during implementation of YECRP and SEP's development for SPECRP. This adds great benefits and experience in preparation a joint SEP with UNDP partners (SFD, PWP, and SMEPS) during project appraisal. UNDP has a solid and rich experience in provision of the CfW and CfS for constructing and rehabilitating various agricultural and water facilities depended on the outcomes of stakeholder's needs and consultations. UNDP gives high dedication and accountability to no one leaving behind, by including the most vulnerable groups, considering human- rights approached, empowering women and gender responsiveness.

41. WFP is the most recent agency to join this Yemen Food Security Response and Resilience project, thus their stakeholder engagement has not been articulated during the accelerated preparation phase. Despite this, WFP has nation-wide operational presence at the field level which includes deep engagement with the local communities through its community-based approach to management of acute malnutrition. As such, they are consistently receiving on-ground information which would support their efforts under Component 3. Prior to implementing livelihood projects, WFP and its partners conduct in-depth community consultations, including Integrated Context Analysis (ICA) and Community-Based Participatory Planning (CBPP) at the local level. These are conducted with wide representation from women, men, and persons with disabilities, who meaningfully participate in different stages of the project, including the identification of training/skills development needs, overall programme design, and implementation. WFP works closely with the Ministry of Public Health and Population (MoPHP), the Ministry of Education (MoE) and the Ministry of Technical Education and Vocational Training (MTEVT).

42. **Considerations & Lessons Learned from Similar Projects/Engagement Efforts:** Stakeholder engagement activities must accommodate contextual factors of conflict, violence and fragility, and additional threats posed by COVID-19 and cholera outbreak risks. Social cohesion and trust which have eroded due to years of war, destruction, and inter-communal fighting must be rebuilt through consistent engagement, positive project-related impacts, and swift addressal of grievances. These considerations and lessons-learned are drawn from a blend of the: (i) Desert Locust and SAPREP Project findings/supporting documents; (ii) Evaluation report by the Yemen Community Engagement Working Group (August 2016)[12]; (iii) UNICEF/Humanitarian Policy Group Commissioned Report on "Accountability dilemmas and collective approaches to communication

[12] Yemen Community Engagement Working Group, 2016. URL: https://reliefweb.int/sites/reliefweb.int/files/resources/enhancing_informed_engament_with_conflict_affected_communities_in_yemen.pdf

and community engagement in Yemen" (July 2020)[13] ; and (iv) experiences from relevant World Bank, UNDP, WFP, SFD, and PWP projects (including the Yemen Emergency Crisis Response Project (YECRP)). Methods for incorporating these lessons-learned into this project's SEP are indicated at the end of each bulleted lesson.

a. **Addressing grievances:** The 2016 evaluation conducted by the Yemen Community Engagement Working Group highlighted the difficulties of stakeholder engagement in conflict-affected areas of Yemen. Focus groups discussions showed that, although most community members felt involved with the humanitarian response, only 15% knew how to provide feedback or lodge a complaint to humanitarian agencies. Amid the small percentage of people who did provide feedback or complaints, only 40% felt their opinion or concern had been considered. Amongst internally displaced persons (IDPs), while their familiarity with lodging complaints was about the same as community members, the percentage who felt their opinion or concern had been considered dropped to 29% (71% of IDPs felt their feedback was not accounted for). These low numbers might be a reflection of possible underlying under-reported issues pertaining to harassment, abuse, or general project-related concerns. As such, this SEP must ensure that its GRM process is transparent, accessible, and inclusive to all – including women, vulnerable groups, and persons with disabilities – with different channels of communication to receive complaints/feedback, and that responses to grievances are provided (i) promptly and (ii) in a manner comprehendible to the complainant, to avoid misunderstanding and distrust.

b. **Preferred method and timing of communications:** Trusted, preferred, and most-used communication channels amongst the target beneficiaries include cell phone calling (59%) and word of mouth (56%). The top preference changes, however, depending on whether those involved are IDPs or host communities: IDPs prefer cell phone calling, whilst host communities prefer word of mouth. Focus group discussions showed that trusted word-of-mouth information comes from friends, relatives, community leaders or knowledgeable community members (e.g. religious leaders). Community volunteers are considered the third most trustworthy source of information (36%), and radio the fourth (23%). Televisions are used but are not as widely trusted. The use of a given communication channel relates to the level of trust people bestow upon that channel. Both television and radio are perceived to be less trustworthy than other methods due to the perceived politicized nature of the information. Noticeboards are the least used mode of communication. Given this, stakeholder engagement for this project will utilize the most trusted and preferred methods of communication. Preferred timing of communication will need to be determined once the project areas have been finalized, based on the preferences of the local communities.

c. **Sustained information flows with opportunity to shape assistance:** The 2020 UNICEF/HPG commissioned report, *Accountability dilemmas and collective approaches to communication and community engagement (CCE) in Yemen*, highlights there are three main approaches to CCE in Yemen: (i) face-to-face engagement (driven by social capital); (ii) technological engagement (driven by social media); and (iii) humanitarian leadership (management-driven). When these various approaches and their

[13] UNICEF, 2020b. URL: unicef_cce_yemen_web.pdf (odi.org)

communications activities are impeded, be that due to conflict or other obstacles, it results in a temporary suspension of information flows from the affected population to international actors (and vice-versa). This suspension increases overall response times, erodes trust, and reduces opportunity to adaptively manage project interventions. The report suggests that the *"most striking evidence that the collective approach to CCE has not had an impact in Yemen is the limited engagement of communities and local organizations in shaping the assistance they receive."* Part of this is because affected persons do not always know how to prioritize their needs – the report indicates that, despite receiving trainings from organizations on needs identification and prioritization, they often live with the feeling that *"when assistance arrives, they … should take everything that they can get even if they do not have a critical need for it."* This feeling stems from insecurity about reliability and arrival time of assistance. With this in mind, this SEP will focus on (i) ensuring use of multiple engagement channels in order to avoid potential disruptions to information flow; (ii) providing frequent updates on timing and planning of assistance, in order to assuage fears which fuel the *"take anything you can get right now"* mentality; and (iii) incorporating, to the best extent possible, community recommendations within the project interventions. Four key considerations are offered from the report, to be included within this SEP's approach to engagement:

i. Approaches to CCE, both collective and individual, should invest further in ensuring that they are driven by local realities and priorities and take existing power dynamics into account;
ii. Collective approaches to CCE need to be more inclusive of marginalized groups;
iii. A collective approach to CCE should be supported by an honest conversation about the capacity to adhere to the humanitarian principles in practice; and
iv. Local organizations should be empowered to play a bigger role in decision making, structuring and implementing the response by being brought into the collective approach to CCE.

d. **Disease transmission:** Consultations will include necessary precautions to prevent spread of COVID-19. The following are some considerations for selecting channels of communication, given the current COVID-19 situation and threat of cholera outbreaks:

- Avoid public gatherings (taking into account national restrictions or advisories), including public hearings, workshops and community meetings;
- If smaller meetings are permitted/advised, conduct consultations in small-group sessions, such as focus group meetings and deploy good hygiene practices. If not permitted or advised, make all reasonable efforts to conduct meetings through online channels;
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chatgroups appropriate for the purpose, based on the type and category of stakeholders involved;
- Employ traditional channels of communications (dedicated phone-lines, radio, television, newspaper, and mail) when stakeholders to do not have access to online channels or do not use them frequently. Traditional channels can also be highly effective in conveying relevant information to stakeholders, allowing them to also provide feedback and suggestions;

- Where direct engagement with project affected people or beneficiaries is necessary, identify channels for direct communication with each affected household via a context-specific combination of email messages, mail, online platforms, dedicated phone lines with knowledgeable operators, etc.;
- Each of the proposed channels of engagement should clearly specify how feedback and suggestions can be provided by stakeholders.

- **Maximizing benefits from YECRP Systems for Stakeholder Engagement:** the YECRP offers a well-established stakeholder engagement system that will continue to be implemented in this proposed project. The existing YECRP system will be utilized and further improved for stakeholder engagement based on the following:
  - Communities are involved from the outset in the selection and design phases, through to project closure, as specified by the principles for sub-project cycle identification, development, and management.
  - During the project appraisal, the implementing partners nominate a community committee to sustain community participation and engagement, providing training activities to enhance community capacity to sustain activities after project closure.
  - Community committees are set up at the onset of project at the identification and design phase and play a key role in supporting field teams, facilitating implementation and in the sustainability of community assets that are built through subprojects, after project closure.
  - Communities are engaged early and, to reduce the potential risks of conflict between stakeholders over project implementation, a careful selection criterion is developed by the implementing partners. While determining an objective set of criteria, and using a national data-based distress index, communities are also called upon to participate at the municipal level to engage in prioritization of community projects and identification of beneficiaries.
  - Subprojects must meet the basic needs according to poverty and service needs provided in national indicators. Priority is given to poorer communities. Data provided through national indicators, community groups are consulted to identify who will benefit from sub-projects, in this way stakeholders themselves are involved in the selection and decision of who benefits from sub-projects.
  - All implementing institutions will include gender mainstreaming, GBV and SEA/SH provisions as a means to ensure equal participation of all stakeholders in subprojects and provide opportunities to improve women's participation in decision-making as indicated in the above section on project impacts and risk, gender section. In addition to developing an action plan to build the capacity on the social safeguard requirements on gender, GBV and SEA;
  - Use a Third Party Mechanism (TPM) to (i) help ensure stakeholders have been duly consulted; and (ii) monitor their level of satisfaction with the project, including with the sub-project selection criteria. TPM surveys have verified implementation of planned interventions, adherence to agreed implementation procedures, quality of implemented interventions, beneficiaries and community satisfaction on various aspects of project interventions and its effects/impacts on targeted beneficiaries and communities. Women and men, youth are interviewed separately to enable meaningful participation by marginalized groups; and

- Strengthened and ongoing stakeholder engagement, bringing together the various stakeholders more regularly as true partners to help identify solutions to the challenges faced by the project (this was identified as a lesson learned based on the ESMF stakeholder consultations for the YECRP). Stakeholder engagement will continue to be a priority of the project and project partners will continue to explore new and effective means to deliver on this commitment. Each sub-project should include a budget line for stakeholder engagement and capacity building/training.

UNDP and its partners' prolonged experience, knowledge and capacity will ensure achieving the purpose and ensure timely implementation of the SEP.

- **Maximizing lessons-learned from WFP's projects and country operations:**

  - **Strengthening community capacity and civic engagement drives commitment and autonomy:** WFP's 2020 Review of Food Assistance for Assets found that Food for asset and livelihood activities strengthen community capacity by involving communities, including women and youth, in the implementation of activities throughout the project, starting from the selection of assets to asset delivery. Participating communities feel empowered to decide what assets are important to them and receive training to run and maintain the assets autonomously after the project ends. The civic engagement experiences through which participants and community members report learning the importance of commitment and organization, feedback mechanisms and voluntary contributions for the common good. These experiences often resulted in follow-up self-help processes that were undertaken autonomously by the community. In the current context of Yemen, some communities found it challenging to meet their commitments for maintenance after the completion of the project due to the absence of public funds. Further investment in the training of local partners, civic society and communities is required to ensure sustainability of results. This includes more systematic knowledge sharing and evidence building and increased focus on the creation of functional community asset management committees.
  - **Reduced hardships, empowerment and benefits for women and vulnerable groups.** Assets decrease day-to-day hardship, especially for women, children and persons with disabilities, as confirmed by 90% of surveyed community members in WFP's 2020 Review of Food Assistance for Assets (FFA). Released time was used for productive tasks, personal and family care and rest. Improvements were commonly felt through:
    - *Safer and faster water collection by women, girls and boys:* Women, girls and boys are tasked with water collection for drinking and domestic use in most rural areas in Yemen. They often travel long distances by foot to collect water and carry it manually back to their residences. Where a footpath or road is available, the community also relies on donkeys or motorcycles for transport, making water collection easier. FFA activities focused on increasing the volume of rainwater harvested as close as possible to houses within the community by renovating and constructing water harvesting schemes; building safe and accessible water tanks for drinking water

from natural springs; and improving road access to water collection points so that women, girls and boys do not have to carry water manually. It was found that these activities not only reduced hardships but also improved access to education, as many girls and boys reportedly miss or arrive late to classes due to their engagement in water collection tasks. These activities also mitigate protection risks, including exposure to sexual and gender-based violence (SGBV) or any types of abuse during the long travels and water transportation;

- *Easier road access for people requiring medical attention and persons living with a disability:* the rehabilitation of rural roads has led to significant improvements in the physical access of community residents to medical services. The cost and duration of transport to medical facilities prior to the FFA interventions prevented residents from seeking and receiving medical attention on time or carrying routine medical checks, especially for pregnant and lactating women and persons with disabilities. This has frequently led people to succumb to disease before urgent medical attention could be provided. Expanded, renovated and weather-proof roads facilitated the affordable and reliable access of residents to health services; and
- *Strengthened women's participation in decision-making:* Ensuring the participation of women in FFA activities is a challenge in Yemen. The programme took specific measures to raise awareness among partners and the community to ensure that the voice of women is heard during community consultations and that specific, culturally acceptable tasks could be designed and implemented by women. In some locations, asset creation activities were replaced with training activities or health and hygiene awareness tasks led by women within their communities.

- **Transfer of skills and complementary activities foster diversified livelihoods:** WFP's prior experience shows that semi-skilled and skilled workers from the community worked jointly and benefitted from the supervision of engineers and technical staff, which expanded their expertise and experience. Furthermore, all workers received basic training to deliver the outputs that were assigned to them during the implementation of activities. Many participants reported that the skills gained during the project increased their employability and their chances of finding higher-paid jobs. In order to more systematically reap and maximize these benefits, livelihood activities could be accompanied by targeted trainings on sustainable agricultural practices as well as capital-intensive input such as machinery for irrigation and cultivation. The impact on diversified and strengthened livelihoods are further strengthened through complementary activities. This include agricultural and non-agricultural trainings, livelihoods grants to support access to input and equipment for on-farm and off-farm activities, and capital-intensive projects such as the installation of solar-powered water pumps.

- **Maximizing lessons-learned from the Smallholder Agricultural Production Restoration and Enhancement Project (SAPREP):**
    - **SAPREP activities have strengthened social relations in communities and helped beneficiaries reinstate and improve their sources of income.** Beneficiaries perceived SAPREP interventions as relevant to their most important needs and accessible by all different groups in targeted communities, and reported sizeable increase in yields, area planted and farm profits. The project surveys of beneficiaries reported high satisfaction with the project support and quality of services received. 93% of surveyed beneficiaries perceive SAPREP activities as relevant to their most important needs. They also report about equal access to the services by all different groups in targeted communities and that SAPREP activities strengthened social relations in communities. Beneficiaries reported that inputs provided by the project helped beneficiaries to reinstate and improve their source of income. In particular, poultry distribution and livestock restocking activities resulted in 40% and 27% increases in incomes respectively. Beneficiaries of the seed distribution program reported 53% and 61% increases in income for forage and cereal seeds respectively.
    - **Empowering women by increasing knowledge and employment opportunities brings immediate rewards as it improves farming business**. Participation in the SAPREP's Farmer Field Schools (FFS) allowed women to improve farming practices and to gain knowledge on good agricultural practices, leading to increases in yields, healthier food for their families and more significant income opportunities. Women that were selected and trained as Community Animal Health Workers (CAHWs) under SAPREP were officially recognized as Animal Health Workers which led them to both gain respect and to deal with the broader set of challenges found within their communities. Women's empowerment under the project yielded benefits beyond ensuring employment and income generation for the women. The local community became more accepting of reducing gender-related barriers that usually prevent women from working, promoted women's work, and allowed for mobility (women provided advice in their villages and neighboring villages). The project will explore options to collaborate with the local research centers, for instance the Gender and Development Research Center of Sana'a University.
    - **Successful project implementation in challenging operational environments hinges on carefully considered partnerships and implementation support arrangements, but local capacity building should be built into the project.** Where the client lacks the capacity to implement and coordinate a crisis response, 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 should be balanced by a strong program of capacity building

(technical and managerial) for the client. Close supervision is also needed to more effectively track progress, communicate and establish teamwork.

43. At the time of preparation, FAO conducted public consultation with different experts and consultants from the Ministry of Agriculture and Irrigation (MAI), SFD, SMEPS and SAPREP. A total of 43 agriculture engineers were consulted: 10 from MAI; 13 from SFD; 10 from SMEPS; and 10 from SAPREP. The consultations were specifically meant to inform the safeguards documents, notably the PMP. These engineers consulted included those who supervise horticulture and agriculture activities. FAO also conducted initial consultations with farmers beneficiaries who benefited from previous interventions (a total of 16 farmers were consulted: 10 from SAPREP; five from SMEPS; and one from SFD).The overall objective of these initial consultations were to anticipate the expected impacts of the project activities, gaps in knowledge/awareness pertaining to safeguards, current pesticide practices, use of fertilizers, and use of indigenous pest control practices and knowledge. The stakeholders' concerns have been documented (see the annexes of this SEP) and lessons-learned in reference to the FSRRP's planned interventions have identified to anticipate the potential mitigation measures most amenable to the project beneficiaries. Feedback received from and issues raised during the public consultations with stakeholders on the use of pesticides have been integrated in this SEP.

The consultation meetings were organized as telephone questionnaires and as WhatsApp groups due to the COVID-19 crisis and the subsequent restrictions imposed on gathering a maximum of four people at a time. (See Annex 2 for a detailed summary and analysis of the consultation responses with the experts and consultants' group; Annex 3 for a detailed summary and analysis of the farmers' responses; and Annex 4-A and Annex 4-B for the overall list of participants).

Most of the interview results documented the views and concerns of previous horticulture targeted farmers, project officers and technical agriculture engineers involved in supervising horticulture activities with regard to pesticide and fertilizer use, storage, solid waste handling mechanisms, indigenous pes management practices, and knowledge of the broader safeguards tools, etc.

**Outcome of the consultations**

Some of the outcome of the consultations were as follows:

- *From the consultation with agriculture engineers involved in supervising different horticulture sub-projects:*

The agricultural engineers noted the following environmental and social practices (see Annex 2 for a detailed summary of the consultation with engineers):

- Most farmers use the pesticides randomly, without consulting a specialist, and they usually believe the pesticide seller's advice (**Ask an experienced person, and do not ask a doctor**);
- Most farmers mix more than one type of pesticide (some call it "**Magic Mix**") without knowing of the risks posed by such mixing to the health of humans, plants, and the soil;
- Lack of awareness about overusing pesticides, including smuggled and expired pesticides;
- Lack of adequate pesticide storage on the farm;
- Lack of knowledge of withholding period before harvest;
- Inadequate use of pesticide instructions;
- Application of pesticides without proper personal protective equipment (PPE), and in the presence of children and pregnant women;
- Mixing of pesticides with bare hands and mixing more than one type of pesticides;
- Lack of pesticide management knowledge (type, time, doses and etc.);

- Improper usage and spraying of pesticides; and
- Excessive dosage of pesticides.

- *From consultations with Farmers*

The following environmental and social concerns were noted during the consultations with farmers (see Annex 3 for a detailed summary of the consultation with farmers), which confirmed many of the findings from the consultations with the agricultural engineers:

- Most farmers use the pesticides randomly, without consulting a specialist, and they usually believe the pesticide seller's advice – resulting in frequent deception;
- Death of animals and bees;
- Community health problems such as poisoning and cancer;
- Pollution of pastures, food, fodder, soil and water resources (surface and ground water);
- Damage to agriculture production due to misuse of pesticides;
- Pests gain immunity against pesticides;
- Disturbing the biodiversity balance and friendly ecological pests;
- Using pesticides containers for other purposes;
- Neglect the post-harvesting safe period;
- Accumulation of pesticides in the soil negatively affect the soil fertility;
- Spread of pesticide odours and sprays to the adjacent neighbourhood;
- Bad handling and disposal of pesticides;
- **56% of the farmers used to mix more than one pesticides such as spider/ insecticides and fungal insecticides, potassium sulphate with calcine with super agricultural fertilizer;**

Based on this, some recommendations were provided:

- Buy registered and approved pesticides from authorized sellers;
- Maintain good storage of pesticides in the field;
- Maintain good practice of handling and disposal of pesticides;
- Use bio pesticides and alternative techniques to control pests;

## STEP 3: Stakeholder engagement during project implementation

44. A stakeholder communication strategy will be prepared and put in place to address the following:
    e. Location of project interventions; general information on project and project-associated risks and impacts; precautionary mitigation measures; grievance redress processes; etc.;
    f. Appropriate and effective types of communication methods to reach the target groups, including differentiated needs of vulnerable groups and preferred timing of communications and interventions;
    g. Emergency-communications procedures to inform the public in the instance of a project-related emergency;
    h. Project and emergency contact information;

45. The strategy will draw upon lessons learned from implementation partners, previous/concurrent projects, and related community engagement efforts (as detailed in the previous section of this chapter). During the COVID 19 the prevention measures of social distance will be applied apply to

more telecommunication using technological methods will be used as well as limiting the number of people during face-to-face meeting and introduce door to door discussion during the stakeholder consultations. The guiding principles for effective communications and outreach include:

i. **Clarity:** the objective of communication and the audience must be clear.
j. **Accessibility**: communication must be accessible with effective channels identified to make information available to all, particularly historically underserved and vulnerable groups.
k. **Actionability**: communication must indicate how audiences can move toward action or incite action directly; this may include designing a behavior change campaign and/or encouraging action during a health emergency.
l. **Credibility:** communications must come from trustworthy sources, following the local standards for trusted forms of communication, establishing technical accuracy, transparency, coordination with partners, and communicating as one consistent message from an agreed-upon entity.
m. **Relevance**: communications should be tailored to include only the most relevant content, specific to the audience. This requires knowing the audience, listening to the audience, tailoring the message to the audience, and then motivating the audience to take part in and provide feedback.
n. **Timeliness:** communications must be timely, which means communicating what is known at the right time (rather than leaving stakeholders to speculate) and keeping a continuum of conversation.
o. **Comprehensibility**: wherever possible, simple language is preferred, relating the message to the stakeholder's context using visual and local/familiar language.
p. **Monitoring, Evaluation and Learning**: communications must be iterative in nature and develop through a feedback loop provided by regular monitoring, evaluation, and incorporation of lessons-learned into future iterations.
q. **Compatibility of Partner Communications:** ensure adequate exploration of the various communication functions and units of the implementing partners, including changes and how such functions would be relevant to the proposed project.

46. With these considerations in mind, the following engagement methods are tentatively proposed, as they draw upon and utilize the methods already employed by the UN implementation agencies (FAO, UNDP, WFP) and their projects (e.g. the Desert Locust Project).

**Table 1:** Engagement approach and examples of appropriate application

| Engagement Approach | Appropriate Application (Examples) |
|---|---|
| **Technological**<br>This includes correspondence via phone and/or email; a project website; social media sites; printed information on project leaflets or signage | • Establish hotline for project grievances, concerns, and information, OR utilize an existing hotline (ensuring that all project-specific grievances are captured in the project's grievance log);<br>• Distribute information to Government officials, NGOs, Local Government, and organisations/agencies;<br>• Invite stakeholders to meetings and follow-up;<br>• Present project information and progress updates;<br>• Disclose the ESMF, ESMP, and other relevant project documentation;<br>• Share information door-to-door on project activities; project investment locations; project disclosure; educational materials on E&S risks/impacts; |

| | |
|---|---|
| | • Highlight site-specific project information<br>• Infographics on nutritional and dietary requirements |
| **Face-to-Face**<br>This includes direct communication with affected populations, focus group meetings | • Share information on the timing of interventions;<br>• Reach consensus on cash-for-work interventions;<br>• Present project information to a group of stakeholders and record feedback;<br>• Hear stakeholders' views on targeted baseline information;<br>• Build relationships with the communities. |
| **Grievance Redness Mechanism (GRM) Box** | • Establish site specific box for project grievances, concerns.<br>• Receive written complaints, suggestions, or feedback into GRM boxes.<br>• Involve community committee into opening and solving complains<br>• List and document the types of GRM and complaints |

47. The strategy will include a timeline concerning the implementation of communications activities as well as the expected turn-around time for responses to requests for information, among others. The transparency of this timeline will be important for project accountability and the management of expectations. Delays should be reflected in an updated timeline that is easily available for all.

48. With specific regard to COVID-19, and in order to address project stakeholder needs within the context of the global pandemic, a precautionary approach will be taken to the consultation process to prevent infection and/or contagion. Given the highly infectious nature of COVID-19. the following are some considerations for selecting channels of communication:
    - Avoid public gatherings, including public hearings, workshops and community meetings;
    - If smaller meetings are permitted/advised, conduct consultations in small-group sessions, such as focus group meetings.
    - Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chatgroups appropriate for the purpose, based on the type and category of stakeholders;
    - Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, and mail) when stakeholders to do not have access to online channels or do not use them frequently. Traditional channels can also be highly effective in conveying relevant information to stakeholders, and allow them to provide their feedback and suggestions;
    - Where direct engagement with project affected people or beneficiaries is necessary, identify channels for direct communication with each affected household via a context specific combination of email messages, mail, online platforms, dedicated phone lines with knowledgeable operators;
    - Each of the proposed channels of engagement should clearly specify how feedback and suggestions can be provided by stakeholders.

49. In addition to consultations already held during project preparation (see Annex 1 for a full list), a tentative list of forthcoming engagement activities is indicated in Table 2, with the understanding that these will be further refined and updated as the project design is finalized. Emphasis is given to consultations to support the selection and prioritization of districts, communities, and beneficiaries. Several iterative discussions will be held with government officials; local leaders at the Governorate, District, and Community levels; private sector entities and Civil Society Organizations (CSOs).

**Table 2:** Tentative List of Forthcoming Stakeholder Engagement Activities

| Project stage | Targeted stakeholders | Topics of engagement | Methods | Location and frequency | Responsible unit |
|---|---|---|---|---|---|
| Implementation | Local leaders<br>Communities<br>CSOs<br>Private sector | Sub-project activities for communities | Focus groups and key informant interviews;<br>Information dissemination via phone, online, radio, flyers | Focus groups and interviews to be held virtually or in-person, depending on COVID-19 situation; at least two consultations per group;<br>Additional outreach via web/phone/ etc. | FAO, UNDP, WFP, and implementing partners |
| Implementation | Local leaders;<br>Communities;<br>Implementation partners;<br>Government | GRM and E&S considerations | Sensitization trainings | In person and/or online;<br>Mobile, web, and paper-based posting of information | FAO, UNDP, and WFP. |
| Implementation | Local leaders;<br>communities; | Ongoing reporting for project progress and community satisfaction | Focus groups & key informant interviews;<br>Online and/or paper-based surveys | In person, depending on COVID-19 situation, with additional outreach online/paper-based;<br>Every six months. | FAO, UNDP, WFP, and implementing partners |

50. An inception workshop is planned for December 2021 (see Annex 5 for TORs providing an overview of the event and topics covered) to develop a common understanding of the project vision, objectives, components amongst the stakeholders and project team before on-ground implementation of the project starts across the country. The workshop will set the foundation to strengthen partnerships amongst the stakeholders and project staff and provide an opportunity to better understand the positive and negative impacts of the project, including the E&S management approach. The inception workshop will be organized in two-steps. The first step focuses on project teams and partners[14], while the second step focuses on the wider stakeholders that have direct and indirect roles in project implementation. The inception workshop for both categories of participants will be organized in Aden and Sana'a respectively. The draft TOR for the Inception Workshop is in Annex 5. The outcome of the inception workshop consultation will be added to this SEP once conducted.

51. **UNDP-Led Consultations (focused on UNDP-led project activities):**

52. Consultations with stakeholders will be utilized to broaden and discuss the range of options available to eliminate and reduce potential adverse social and environmental impacts. The local knowledge of directly affected stakeholders and other key stakeholders may help identify innovative approaches and make mitigation measures more effective. Consultation is also an essential tool for coming to agreement with project-affected stakeholders on the key measures to be adopted as well as on the design of benefits programs that are targeted and culturally appropriate. Stakeholder consultations

[14] These are critical partners for implementation of some of the project component and identified during the preparation of the PAD

should be utilized to verify whether the draft ESMF appropriately reflects concerns of project-affected groups and individuals.

The methodology

53. UNDP's methods for consultations include video presentations to participants (males & females) which clearly and comprehensively explain the Yemen Food Security Response & Resilience Project's objectives and the different components of the ESMF. Afterward, focus group discussions (FGDs) will be conducted with these participants. The FGDs will be composed of different stakeholders including local authorities and community committees; female community committees and single mothers, lactating women; PWP, SFD staff and OHS officers and contractors and advantaged and disadvantaged groups (Land/business owners on or adjacent to investment sites).

54. The consultations on the ESMF will focus on IPs staff, local authorities, local beneficiaries and key actors at the local level from at least four representative governates in the Northern Yemen and three representative governorates in the southern region. The consultations will be carried out in the North and South of Yemen to:

- Ensure effective engagement and informed consultation of stakeholders in the Environmental and Social Management Framework (ESMF);
- Ensure ownership and full participation of the stakeholders, by giving opportunities to discuss and get comments and recommendation from all stakeholders;
- Ensure consultations are gender-responsive, culturally sensitive, non-discriminatory, and inclusive, identifying potentially affected vulnerable and marginalized groups and providing them with opportunities to participate;
- Ensure all stakeholders can communicate their concerns and grievances during project implementation;
- Adopt and discuss on relevant safeguards instruments (e.g. ESMF, RF, etc.).

**WFP-Led Consultations (focused on WFP-led project activities)**WFP will conduct stakeholder consultations with beneficiaries, local communities and authorities covered by sub-components 3.2 and 3.3 of the World Bank FSRRP project, in line with the guidelines in the SEP. The organization of these stakeholder consultation will be supported by WFP's Implementing Partners. Once the district selection has been finalized, an inception meeting will be organized with the potential Implementing Partners to coordinate this process. The estimated timeline for the consultations to be completed is 15 December 2021.

- **For sub-component 3.2 (livelihoods)** specifically, the consultations will involve engagement of the Ministry of Technical Education and Vocational Training (MoTEVT) and local training service providers, taking into account the specific needs of supporting women entrepreneurship and the market needs.
- **For sub-component 3.3 (nutrition)** specifically, the consultations will involve engagement of the MoPHP, (I)NGO's as well as other stakeholders in the field of nutrition such as the Nutrition Cluster.

55. Internal discussions will be organized by all UN agencies involved in the project to determine synergies and complementarity of activities and discuss details of project interventions and synergies

## VII. INFORMATION DISCLOSURE AND CONSULTATION STRATEGY

56. The strategy for information disclosure and consultation will depend on the local context (including the changing situation of COVID-19). Regardless, all activities will be inclusive and culturally sensitive so that vulnerable groups can meaningfully participate in and avail of project benefits while avoiding unnecessary risks. Likewise, stakeholder engagements will be culturally sensitive in nature, ensuring that both men and women are enabled to share their views in a safe environment. Information will be delivered in a meaningful, timely, and accessible way for all affected stakeholders (e.g. use of local language or images in the instance of high illiteracy). Information disclosure and consultation may include a blend of household outreach activities, focus group discussions, telecommunications (e.g. radios, phones), and/or the use of verbal communication and pictures. Country-wide awareness campaigns for some of the project activities (e.g. nutritional information) may be established, but area-specific communications and awareness-raising consultations will still be the gold standard for effective outreach.

57. Table 3 illustrates the proposed common UN Strategy for Information Disclosure and Consultation.

**Table 3: Proposed Common UN Strategy for Information Disclosure and Consultation**[15]

| Sub-Project phase | List of information to be disclosed | Methods | Target group(s) | Responsibility |
|---|---|---|---|---|
| **Project Identification, Screening and Assessment** | Project concept, E&S principles and obligations, documents, Consultation process.<br><br>ESMP document includes area, target group, estimated cost, GRM, ES & OHS risks management and mitigation plans.<br><br>GBV/ SEA/ gender mitigation/ prevention plan. | Participatory methods, door to door/social distance meetings, public consultations, documentation | Affected groups and interested groups: men, women, youth, elderly, people with disability, disadvantage groups, migrant and IDP people | WFP through Cooperating Partners (CPs), FAO and UNDP through Implementing Partners (IPs) |
| | | Awareness sessions/ training for Gender/ GBV and SH, GRM and complaint' channels/ confidentiality and anonymity complaints<br><br>Information leaflets and brochures; and meetings, including with vulnerable groups while making appropriate adjustments to formats in order to take into account the need for social distancing. | Affected people, marginalized and women groups, and community committee | WFP through CPs, FAO and UNDP with IPs and Safeguard and Gender specialists |

[15] The UN agencies and local implementation partners will employ all COVID19 prevention measures in all their activities.

| Sub-Project phase | List of information to be disclosed | Methods | Target group(s) | Responsibility |
|---|---|---|---|---|
| **Implementation and Monitoring** | Updated on implementation of subproject, SEA and GBV preventions, GRM types and closure, accidents and LMP, environmental and mitigations, qualitative impact indicators | Field visits/ FGD public and Community Consultations | Affected/ disadvantaged target groups, community committee | FAO, WFP, CP monitors and Third Party Monitors, UNDP |
| | | Consultations/ FGD, daily meeting/ field visits, GRM cases and accidents' reports and updates | Affected and groups and community committee, injured and complained people | FAO, WFP through CPs, UNDP with IPs and Safeguard specialists |
| | The social distancing and communication strategy. | GRM/ incidents, GBV and SH prevention/ referral pathways and daily monthly/ biweekly reports<br>Dissemination of hard copies at designated public locations; Information leaflets and brochures; separate focus group meetings with vulnerable groups, while making appropriate adjustments to consultation formats to take into account the need for social distancing. | Community committees, and GBV and SH survivors | FAO, WFP CPs, UNDP, IPs, gender and safeguards specialist |
| **Evaluation and close** | M&E Spot-Checks where accessible; Third Party Monitoring Report, documentations | Focus group discussions with beneficiaries and non-beneficiaries | Affected, interested and disadvantaged persons, non-beneficiaries, and local government | FAO, WFP, CPs and TPM, UNDP with IPs and hired TPM. |

58. As stakeholder engagement is an ongoing process, information disclosure must also be an ongoing process. FAO, UNDP, WFP, and their local implementing partners will conduct consultations with the community members and other concerned stakeholders before and during project implementation; likewise, information must be disclosed on a rolling basis, as changes are made throughout the project's lifetime. In addition, preliminary consultations will be conducted during the preparation of the ESMF, subsequent ESMPs, and safeguards documents like the LMP and RPF. The draft and final versions of the ESMF/ESMPs, SEP, LMP, and RPF must be disclosed in both English and local language prior to any formal consultations on the document under discussion. Furthermore, for nutrition activities, community health workers will be involved in the dissemination of nutrition education for all community members and will remain involved throughout the programme. For entrepreneurial interventions, WFP and its cooperating partners

will continue to conduct community consultations to identify vocational training courses of high demand in the local market.

59. **Reporting back to stakeholders**: Stakeholders will be kept informed as the project develops, especially regarding activities which require specific health and safety procedures and taking COVID-19 into consideration. Reports back to stakeholders must cover summaries of the project's safeguards performance and overall implementation of the stakeholder engagement plan and project-level grievance redress mechanism.

60. **Finalizing the strategy:** Once project preparation is complete, the final SEP can be prepared to include details on which methods of communication and engagement technologies will be used for the project. Studies conducted in support of the project design (e.g. background reports, annexes, safeguards documents, etc.) will inform the final engagement strategy, whether that be the production of communication materials, including local radio content, and/or traditional information sharing channels for effective information sharing with communities pre, during and post spraying and documentation.

## VIII. IMPLEMENTATION ARRANGEMENTS & BUDGET

61. The Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), and the United Nations Development Programme (UNDP) will be the implementing entities responsible for the project activities. FAO will work closely with the Social Fund for Development (SFD), Public Works Project (PWP), and the Ministry of Agriculture and Irrigation (MAI) to ensure smooth implementation and widespread, on-ground coverage. The project will have a Project Coordination Unit (PCU) based in Sana'a with staff and resources, including one Environmental and Social Safeguards Specialist, to support the management of the project's environmental and social risks. Technical staff will be deployed in the Aden sub-office and other decentralized hubs to ensure day-to-day management of the project, including all fiduciary, environmental, and social aspects, as well as monitoring and reporting. The lead safeguards specialist in the PCU will coordinate closely with the Regional Project Coordination Units (RPCU's) to provide support throughout project implementation, particularly for reporting requirements. The structure builds on the experience gained with previous grants implemented by FAO in the country. FAO's team in Sana'a will also be backstopped by a dedicated team of technical experts at Regional (Cairo) and Headquarters (Rome) level, in line with the Level 3 fast-track procedures established due to the emergency situation in Yemen.

62. WFP has been present in Yemen since 1967. The country office is based in Sana'a, with area offices in Aden, Hodeidah, Ibb, Sana'a and Sa'ada. Sub-offices are established in Mukalla, Turbah, Mareb, Mokha and Hajjah. WFP Yemen currently employs 888 staff, out of which over 850 in country. WFP will work closely with the Ministry of Public Health and Population (MoPHP), the Ministry of Education (MoE) and the Ministry of Technical Education and Vocational Training (MTEVT). Moreover, for the purposes of safeguards staffing, WFP will hire a project-level safeguards specialist and supporting staff (e.g. OHS specialist), as detailed in the ESCP, to ensure (i) screening of subprojects; and (ii) regular monitoring and reporting.

63. WFP will support nutrition-related activities under component 3 of this project, as it is currently implementing its nutrition programme in line with national protocols and in close collaboration with the Ministry of Public Health and Population (MOPHP) and nutrition cluster partners concerned with severe acute malnutrition, including UNICEF and the World Health Organization (WHO). Implementation will be supported by Ministry of Health and local and international NGOs, including Abs Development Organization for Women and Child (ADO), Adventist Development and Relief Agency (ADRA), Building Foundation for Development (BFD), Field Medical Foundation (FMF), Humanitarian Aid and Development (HAD), Islamic Relief Yemen (IRY), Medical Mercy Foundation (MMF), Save the Children International (SCI), Society for Humanitarian Solidarity (SHS), SOUL for Development, Vision Hope International (VHI), and Yemen Family Care Association (YFCA). The NGOs and INGOs will depend on the finalization of the targeted districts for the FFT interventions component. The preventative nutrition programme is implemented solely by national and international NGOs, while around 40% of the curative programme is implemented by I/NGOs and the MOPHP implements the remainder. Nutrition activities are implemented nation-wide across all governorates, provided there is access. For activities pertaining to women's entrepreneurship, WFP will work with national NGO partners and provide Food for Training to food-insecure women, targeting in particular those who are heading their households in rural communities. The specific NGOs will be identified at a later stage, during the community consultations after the project areas have been finalized. Governorates tentatively flagged for implementation include Lahj, Hadamaut, Hajjah Amran, Sana'a and Ibb, however these will be confirmed after further consultation.

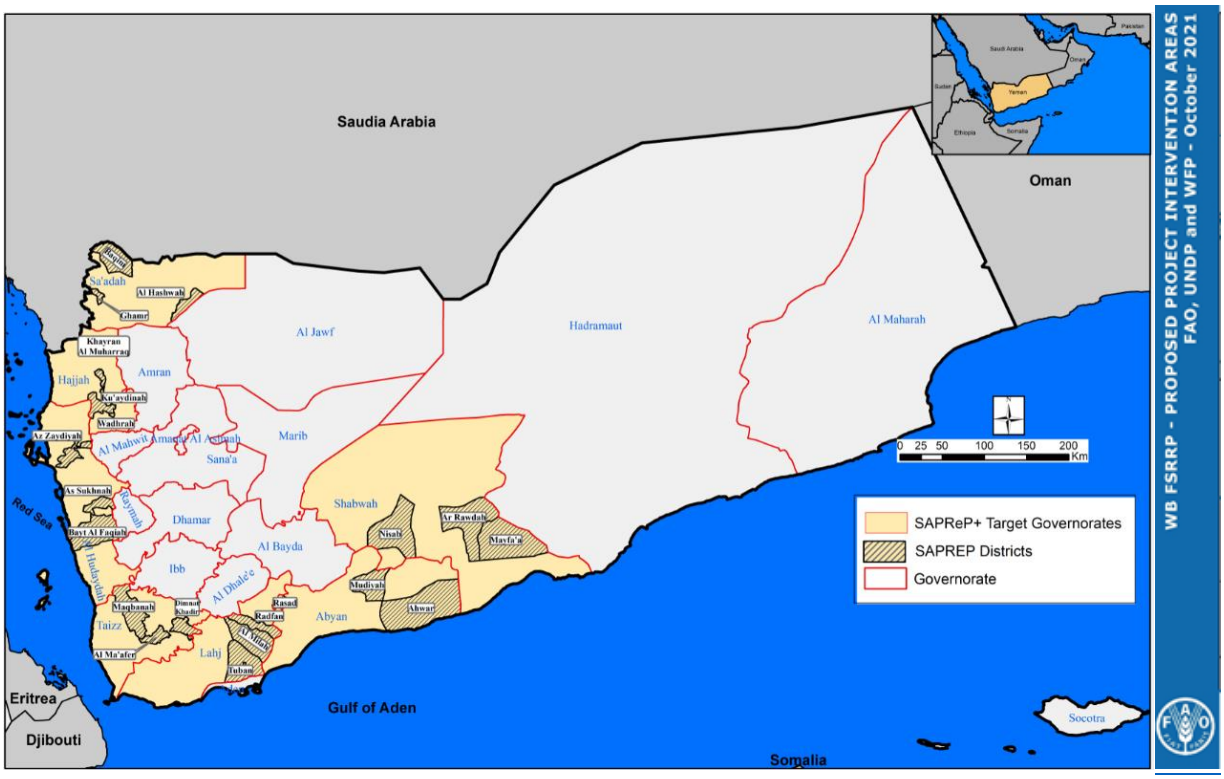
64. UNDP will be responsible of the implementation of Component 1 and part of the community capacity building efforts (targeting women & youth), in collaboration with SFD, PWP and SMEP. UNDP will have a dedicated and experienced project team based in Sana'a, including three national safeguard officers (Social/ environmental/OHS) and one international safeguard specialist, and also supported by international specialists in M&E, and Adaptive Management. Also 1-2 safeguard staff will be recruited in Aden and other sub-regional offices to support the safeguard team in Sana'a. The project will have support from the regional hub and from experts in New York. Additional Procurement support is provided from Malaysia. The structure builds on the experience with previous WB grants implemented by UNDP in the country.

65. Stakeholder engagement under Component 1 will be conducted by a blend of UNDP, WFP SFD, PWP and SMEPs (implementing partners), based on the specific intervention – be that initial targeting and site selection, or rollout of the cash-for-work activities, or safeguards sensitization training. The stakeholder engagement activities will be documented through quarterly progress reports, to be shared with the World Bank. It is important to mention that the UNDP have the qualified safeguard experts who would be directly responsible for the updating/implementation of the SEP. For Component 2, FAO will take the lead in stakeholder engagement, with support from the Small and Micro-Enterprises Promotion Services Agency (SMEPS, an SFD subsidiary) for the second intervention package. Component 3 will be technically led by FAO and WFP, and Component 4 will be led by FAO with collaboration from other UN Agencies as well as with IFPRI and ICARDA.

66. The project will be implemented in areas which are accessible and where the project recovery and development interventions can be implemented, building upon the project areas selected for the original SAPREP project (Figure 2 shows the tentative project areas). The approach is to keep the project design flexible allowing for adjustments as needed. This may include changes in

the project's targeted districts if original districts become inaccessible and adjustments to the implementation schedule due to access and security constraints and other reasons. As indicated above, participation of local communities in the identification and selection of subprojects and investments would ensure inclusiveness and transparency. A third-party monitoring mechanism (TPM) would also be used to monitor the status of implementation on the ground and reflect the beneficiaries' perceptions regarding the project interventions. It should be noted that, whilst the Project Appraisal Document (PAD) includes implementation arrangements (listed, also, in this chapter of the SEP), further delegation of project activities across implementation partners is still under discussion. As such, this SEP will be updated upon project finalization, by which point it will be possible to develop a budget and timeline for the SEP, including the quarterly and annual progress reports made and shared with the World Bank.

*Figure 2: Tentative project areas for activities implemented by FAO (indicated as "SAPREP+" in the image)*




**Suitability of Implementation Partners:**

67. Successful outreach and stakeholder engagement for this project will depend upon close coordination of FAO, WFP, and UNDP with on-ground implementation partners. Some of the known implementation partners include: the Social Fund for Development (SFD) and the Public Works Project (PWP), and Small Micro Enterprise Promotion Service (SMEPS). The SFD and PWP are the key local partners in implementing the ongoing Yemen Emergency Crisis Response Project (YECRP) and would support implementation of Component 1. Meanwhile, the SFD subsidiary, SMEP, would contribute to the value chain development of Component 2. The selection of national institutions for these roles will contribute to building national capacity for community-

based interventions. Nutrition activities will be implemented in collaboration with the Ministry of Primary Health and Population (MoPHP) at national level, governorate health offices and district health offices for implementation, coordination and monitoring of nutrition activities. Frontline heath staffs and community health workers will engage with local and international INGOs for the implementation of the treatment and prevention services. Women entrepreneur training activities will be implemented in collaboration with the Ministry of Education (MoE) for numerary and literacy curriculum and the Ministry of Technical Education and Vocational Training (MTEVT) for alternative vocational trainings, implemented through WFP's cooperating partners.

68. **Social Fund for Development:** The SFD is a non-profit organization established in 1997 to contribute to achieve and align its programs with the goals of the national social and economic Development Plans for Poverty Reduction (DPPRs). It is currently in Phase IV of its operations. The SFD supports development opportunities by: (i) improving access to basic services; (ii) enhancing economic opportunities and reducing the vulnerability of the poor; and (iii) building national capacity, including local authorities and community structures. The SFD is committed to applying the best international and local practices, policies, and piloted approaches and sharing lessons-learned with other development players. SFD has extensive experience with cash-for-work programming and a longstanding relationship with FAO UNDP and WB. The organization has reach within all districts and has served as an implementation partner for past and present FAO/ UNDP/World Bank projects (e.g. SAPREP, Desert Locust Project and YECRP). It's monitoring and evaluation (M&E) system, developed in 2002, facilitates accountability and transparency of all projects for which the SFD is involved. The system relies on a blend of the Management Information System (MIS), field visit project surveys, evaluation surveys, and external databases (e.g. census data, national surveys). This project marks an opportunity for SFD, UNDP and FAO to continue their collaboration, particularly under components one and two.

69. **Public Works Project:** The PWP was established in 1996 to deliver basic infrastructure services with well-defined, transparent procedures. Its main objectives are to: (i) create job opportunities for skilled and unskilled labourers; (ii) provide infrastructure service projects for poor and deprived communities; (iii) improve economic and environmental conditions of the poor; (iv) develop the local contracting and consulting industry; and (v) enhance community participation in the development process. Work is done through regular contracting, community contracting, and cash-for-work programming. Like the SFD, the PWP has nation-wide reach, with operations in every district. Its staff include specialists in M&E/quality control, engineering, environmental and social safeguards, procurement, and finance (to name just a few). The PWP prioritizes engagement with the most deprived areas, where illiteracy rates are high and opportunity for education is low (particularly for women). It coordinates closely with line ministries and offices across the country. The management is committed to transparency and equitability and has an MIS which covers all projects in which the PWP is involved. The PWP has worked on projects with other United Nations entities (e.g. UNOPs, UNESCO) and have supported World Bank projects. The UNDP will collaborate with PWP on activities under Component 1.

70. **Small Micro Enterprise Promotion Service:** SMEPS has experience and knowledge in private sector and 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, provide support and coordination for the project activities. Each branch is consist of branch manager, programs & projects unit which includes Communications & Advocacy, Monitoring, Evaluation, Accountability and Learning

(MEAL) and Procurement Unit, Finance Unit and Administrative Services which includes (IT and Human Resources & Administrative Affaires) 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 and work closely with UNDP in component 1.

## IX. GRIEVANCE MECHANISM

71. The main objective of a Grievance Mechanism (GM) is to assist to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. Overall, the GM:
    - Provides affected people with avenues for making a complaint or resolving any dispute that may arise during the course of the implementation of project activities;
    - Ensures that appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants; and
    - Avoids the need to resort to judicial proceedings.

72. **GM Types:** Three Grievance Mechanisms (GMs) have been made 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 GM addresses the overall project and is included in the ESMF. The other two GMs include: (i) a GM specific to labour management; and (ii) a GM for issues pertaining gender based violence, to sexual exploitation and abuse/sexual harassment. All GMs guarantee: (i) privacy and confidentiality on the part of the aggrieved party; and (ii) a timely and respectful response from project implementers.

73. **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. The FAO, WFP, UNDP and implementing partners (SFD, PWP) have a project-level GM which (i) incorporates inputs and recommendations obtained during project design consultations; and (ii) builds on the existing systems already in place (e.g. hotlines, risk management systems). Moreover, prior to and throughout project implementation, implementing agencies and partners 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.

74. **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.

75. FAO, WFP, UNDP and its implementing partners have developed a GM guideline which details the procedure, timing, and indicative grievance redress committee members, etc. 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. A consolidated template for GM recording will be prepared and agreed by the three agencies and their IP's.

76. **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 GM 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, toll-free phone calls, SMS, WhatsApp, Telegram, Fax, Online Forms, emails, letters, in-person visits to head offices or branch offices or through face-to-face interactions with project staff. Second, the UNDP will develop a parallel GM 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. An overview is given in Table 4.

77. 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).

78. 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.

79. **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. 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 bi-weekly (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 4:** 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 |

| UNDP and partners (component 1) | Address and contact |
|---|---|
| **At SFD HQ** | Contact person: Mr. Mohammed Al-Antari<br>Email: chm_hq@sfd-yemen.org<br>8009800/772045256<br>The complaints cases should be mitigated within 14 days and response within 5 days. |
| **At PWP HQ** | Contact person: Mr. Abdulrahman Sarhan<br>Email: a.sharhan@pwpyemen.org<br>8002626/77526262<br>The complaints cases should be mitigated within 14 days and response within 5 days. |
| **At UNDP in Yemen** | Nahid Hussein<br>Email: nahid.hussein@undp.org<br><br>UNDP Safeguard Specialist<br>Email: mey.ahmed@undp.org<br><br>UNDP M&E Specialist:<br>Email: kazi.hossain@undp.org |
| **At UNDP HQ Office** | Call: 001-844-595-5206<br>Email: project.concerns@undp.org<br>Address: Attn: SECU/SRM, OAI, UNDP<br>1 U.N. Plaza, 4th Floor, New York, NY USA 10017 |

80. **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.

81. **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 M 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 5.

**Table 5:** FAO GM contact details

| | |
|---|---|
| **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. |

| | |
|---|---|
| **FAO Representation** | Must respond within 5 working days, in consultation with Technical Steering Committee TSC.<br>FAO-YE@fao.org<br>**Dr. Hussein Gadain**<br>Hussein.Gadain@fao.org<br>**Toll-free telephone number and SMS** (all mobile companies & landlines): 800 19 19<br>**WhatsApp:** 776 01 30 30<br>**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.<br>**Serge Nakouzi**<br>FAO-RNE@fao.org; RNE-ADG@fao.org;<br>Serge.Nakouzi@fao.org<br>**Tel:** (202) 3331 6000 to 3331 6007 |
| **Office of the Inspector General (OIG)** | To report possible fraud and bad behavior by fax, confidential:<br>(+39) 06 570 55550<br>**By e-mail:** Investigations-hotline@fao.org<br>**By confidential hotline:** (+ 39) 06 570 52333 |

82. 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.

83. Also referred to as the "Beneficiary Feedback Mechanism (BFM)", the GM/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:
    r. Receipt of a feedback/complaint and its registry in the system, capturing details of the caller and the nature of the feedback;
    s. 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 6);
    t. 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;
    u. Inform the complainant not later than seven working days after receiving the case; and
    v. Closure of the complaint.

**Table 6:** Staff Members to Make Decisions

| Categories | Type | Decision-Maker | Timeframe |
|---|---|---|---|
| Category A.<br>Low | – Inquiries;<br>– Request for assistance;<br>– False calls. | – Phone Operator | Immediately |
| Category B.<br>Moderate | – Operational (late delivery of inputs and services, cash transfer payments, etc.);<br>– Out of beneficiaries list;<br>– Out of target area (not included in the project);<br>– Distribution of less amount than envisaged;<br>– Criteria for selection is unclear or not applied;<br>– Quality of items and services provided;<br>– Overlapping activities in the given area;<br>– Dissatisfaction with FAO activities. | – Assistant to FAOR/ Programme;<br>– Assistant to FAOR/ Operations;<br>– Concerned project CTA or staff in charge;<br>– M&E Focal Point. | Review on bi-weekly basis |
| Category C.<br>Critical | – FAO or its IPs staff misconduct;<br>– Corruption;<br>– Tax imposition on inputs and beneficiary payments by local authorities;<br>– Sexual Exploitation and Abuse;<br>– Abuse of authority. | – FAOR or Deputy FAOR;<br>– Assistant to FAOR/ Programme;<br>– Assistant to FAOR/ Operations;<br>– Others assigned by the FAOR based on the case-sensitivity. | Immediately communicated to the FAOR/ Deputy FAOR for decision-making |

84. 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 6 above, as some types of complaints categorized under each category. Each complaint received is identified and classified under the appropriate category.

85. 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.

86. **Grievance Redress Mechanism for Workers**
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.

87. 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).

## X. MONITORING & REPORTING

88. Monitoring and reporting of safeguards and stakeholder engagement will be conducted periodically throughout the project. As this is the first update of the SEP and considering that this SEP is a living document, it will be updated during implementation as necessary, remaining consistent with the requirements of ESS10 and in a manner acceptable to the World Bank. Any major changes to the project-related activities and to implementation schedule will be duly reflected in the updated SEP's. Implementation partners, the UNDP, FAO and WFP will prepare and submit quarterly reports to the World Bank, as well as annual SEP implementation reports which include information on ESHS performance and other environment and social instruments of the Project, including the grievance redress mechanism. The quarterly summaries will provide a mechanism for assessing both the number and the nature of complaints and requests for information, along with the Project's ability to address those issues in a timely and effective manner.

89. **For FAO**, the SEP will be implemented by the safeguards team under the overall supervision of the project Chief Technical Advisor (CTA). The GM will be implemented by MEAL unit with

cooperation of safeguards and GBV teams, the FAO BFM call center (CC) manages the GM. A member of the call center's staff is in terms of maintaining and recording the beneficiaries' complaints and ensuring that they are addressed promptly.

90. **For UNDP**, the SEP will be implemented by the safeguards team under the overall supervision of the project's CTA. **UNDP** is planning to apply the existing GM system which was established under the Emergency Crisis Response Project (ECRP) and develop a Third-Party Monitoring (TPM) call centre facility and will utilize the integrated GM system already in place. Third-Party Monitoring (TPM) call centre will be a parallel GM 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.

91. **For WFP** the SEP will be implemented by the safeguards team.

92. The budget will include the toll free charges, the GM leaflets cost (design, printing and distribution), the allocated staff cost and TPM call center operation costs (for UNDP). Estimates for consultations and related communications are available in the main ESMF.

93. A record of public engagement activities undertaken by the project during a given year will be conveyed to the stakeholders as follows: (i) publication of a stand-alone annual report on the project's stakeholder engagement; and (ii) reporting against Key Performance Indicators (KPIs) based on the principles for effective communication and outreach (see Chapter VI, Step 3).

94. Further details on monitoring and reporting will be outlined within the second updated version of SEP, to be prepared during the project implementation, including the establishment of a detailed stakeholders' communication guideline based on the initial inception workshop and related consultations.

95. All project partners including FAO, WFP, UNDP, SFD, PWP and SMEPS will work to provide unified, joint safeguards requirements, be those documents (ESMPs, SEP, LMP), grievance redress, and/or monitoring and reporting efforts.

96. UNDP plans to involve all stakeholders in monitoring and reporting as part of the SEP and participatory impact monitoring (PIM) to ensure the full participation of stakeholders in the project preparation and implementation phases, and to enhance community's ownership, participation, resilience and sustainable development. This would involve regular meetings (biweekly, monthly, and/or quarterly) with implementing partners with community committees to collect, register and address the GM received at each site. When needed, an urgent meeting could be called to address any immediate responses and actions. UNDP and the implementing partners will monitor involvement of stakeholders as agreed within the SEP, and they will provide capacity building activities to enhance community capacity in community participation and development, women and youth's empowerment and resilience. UNDP and the respective TPMs will formally monitor the project and associated impacts on a quarterly basis, and provide ongoing monitoring of the GM hotline. Throughout implementation, UNDP, it's implementing partners, and the TPM will collect and consolidate best practices and lesson learned from field visits.

97. WFP closely monitors the implementation of activities by partners through its own field monitors and contracted third parties, including:
    - *WFP Field Staff Monitoring*
    - *Third Party Monitoring:* WFP has three dedicated TPM companies that conduct onsite monitoring as well as Post-distribution monitoring.
    - *Three WFP call centres, two in Sana'a and one in Amman*, as part of the process and outcome monitoring: (i) Dispatch and Distribution follow-up to track deliveries, distribution status and identify gaps; (ii) Beneficiary Verification Mechanism to follow up and verify third party monitoring findings in high priority locations; (iii) Post distribution monitoring and outcome monitoring call centre in Amman.
    - *A WFP toll-free hotline number (08002020)*, (as described in the GM) where beneficiaries and non-beneficiaries can ask questions and raise concerns.

98. WFP established several control mechanisms to further augment its monitoring functions, transparency and effectiveness, including a Monitoring and Evaluation Findings (MEF) management database to track and follow up on monitoring findings. WFP undertakes monitoring activities either directly or through one of its TPMs who adhere to the prescribed monitoring process. The process includes engaging with the stakeholders at the clinic level which include community health workers/volunteers, local community leaders, and male and female beneficiaries.

## ANNEX 1: Overview Consultations during Project Preparation

**Consultation with local stakeholders and development partners:** Development of the project proposal was done through intensive a consultation process led by the MAI and MoPIC in collaboration with FAO. Different methods of quantitative and qualitative data collection were used to inform the process, including desk research, interviews with key informants, site observations by staff in the field, focus groups with potential beneficiary groups, and extensive dialogue with stakeholders at different levels. Initial coordination and planning/meetings were held between top officials and experts from MAI, MoPIC in Cairo to make kick-off the process. FAO was delegated to assist in the preparation of the GAFSP proposal. Further discussions took place with the World Bank as the selected supervising entity. A GoY taskforce was established to carry out the design and writing of the GAFSP project proposal, after which a series of consultations with various stakeholders across the following categories (*see list at the end of this annex*: key officials (Ministers, Vice Ministers, and Deputy Ministers) from MoPIC, MAI, MWE, MFW; agriculture extension agents and representatives of rural women departments; researchers; veterinarians and animal husbandry specialists; crop production and seed specialists; crop protection specialists; representatives of cooperatives union and farmer associations; and fisheries specialists. MoPIC facilitated discussions on updating GoY's relevant and interrelated strategies on the following: Food Security, Agriculture Sector, Water Sector, and Investment Plan (represented by reconstruction and economic recovery plan). During proposal development, FAO also consulted key informants such as farmers, farmer groups' members, local NGOs and different private sector actors to collect their invaluable perspectives and feedback, which have notably enriched the proposal.

**Involvement of traditionally marginalized groups during consultations:** As part of ongoing implementation of different projects, the project teams and public sector counterparts have gained deeper understanding of the needs of local government officials, private sector business people, farmer groups, including marginalized groups such as women, youth, landless farmers and farm workers, the elderly and infirm, and other excluded groups. These insights have been invaluable in designing an inclusive and effective response to sustainably address agriculture issues in those districts. Interviews and focus groups held by female staff with and youth groups disaggregated by gender helped participants feel at ease to discuss challenges and potential solutions to be addressed under this new project. Feedback from beneficiaries among these target groups who have been participating under the predecessor project SAPREP were reviewed and results achieved among these groups were analyzed for ways to make improvements.

**Ways in which the consultations have added value or enhanced the project design:** The joint consultation process during preparation of this proposal has reflected ownership and buy-in among government counterparts at different levels and across various ministries, especially MAI, and successful working relationships with FAO staff. The design process reiterated the continued relevance of the National Agricultural Sector Strategy (NASS) and its specific objectives, and delivery mechanisms. Moreover, government experts who helped brainstorm and refine strategies for this project (see table at the end of this annex) provided their deep knowledge and understanding of the challenges they faced and appropriate, feasible solutions for them and smallholder farming communities. This feedback included, but was not limited to, implementation arrangements and approaches to monitoring and reporting. This consultation and coordination served to validate the overall project approach and design and generated thoughtful solutions on how to ensure inclusive approaches and encourage participation of women, youth and other marginalized and excluded groups.

**Full list of stakeholders engaged in consultation process during proposal preparation:**

| Title |
|---|
| **Ministry of Agriculture and Irrigation (MAI)** |
| H.E. Minister of Agriculture and Irrigation |
| Deputy Minister |
| Deputy Minister |
| Deputy Minister Irrigation sector |
| Deputy Minister Irrigation Sector |
| Deputy Minister Agricultural Production Development |
| Deputy Minister Plant Production Sector |
| Deputy Minister Agriculture Services |
| Coordinator of Food Security Programme |
| Consultant of the Minister |
| Advisor - Seed Production |
| Consultant |
| Minister Secretary |
| Ministry Secretariat |
| Director General of Agriculture Extension Department |
| Director General of Agriculture Information |
| Director General of General Seed Multiplication Corporation |
| Director General of Irrigation Facilities |
| Director General of Livestock Development Department |
| Director General of Planning and Monitoring |
| Director General of Planning Department |
| Director General of Plant Production |
| Director General of Plant Production Department |
| Director General of Programmes |
| Director General of Relations |

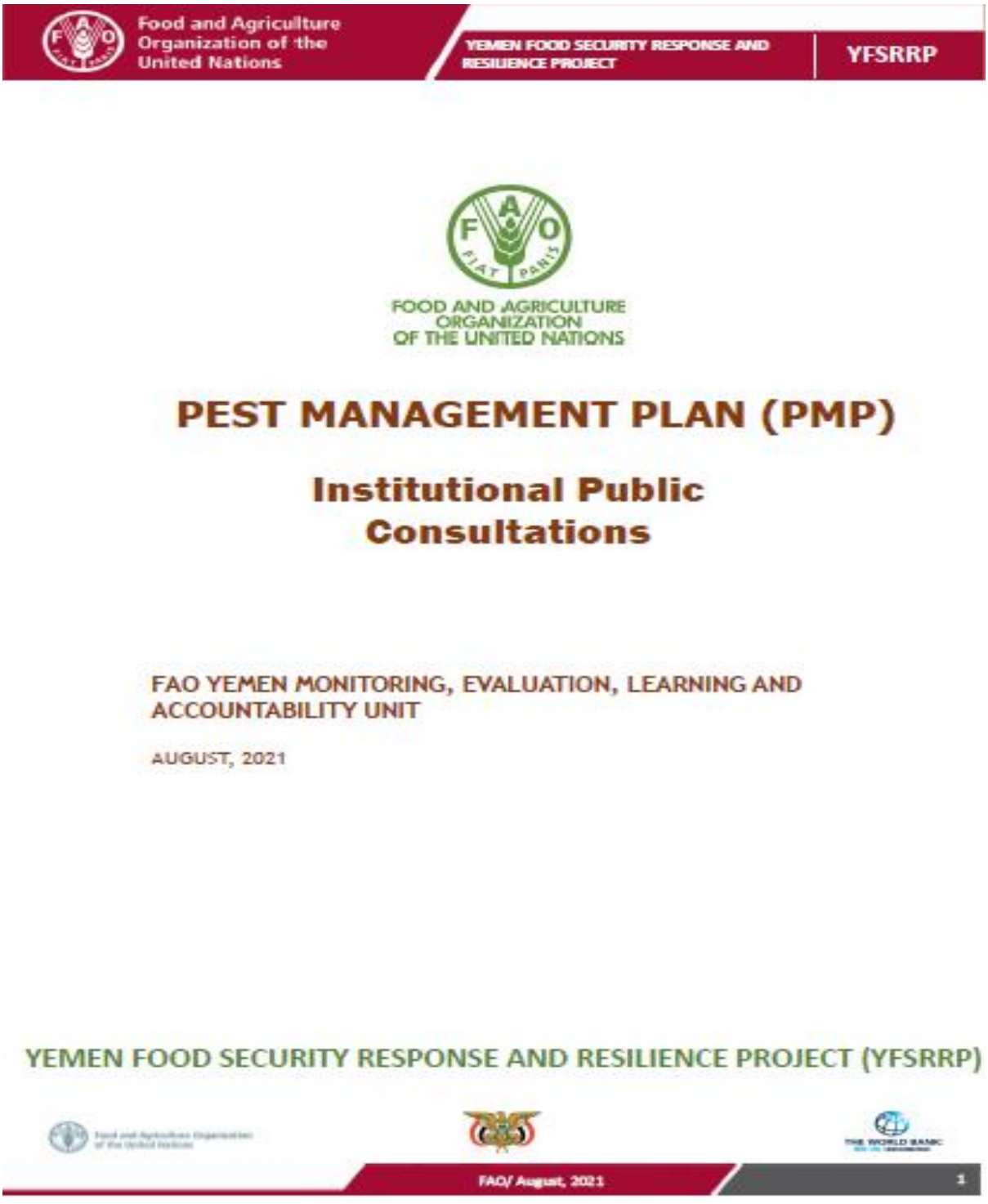
| |
|---|
| Director General of Relations |
| Director General of Rural Women Development department |
| Director General of the Deputy office |
| General Director |
| General Director |
| General Director Plant Protection Department |
| General Director of General Directorate of Animal Health and Veterinary Quarantine |
| General Director of Forestry and Desertification |
| MAI Coordinator at National Authority for Management and Coordination of Humanitarian Affairs |
| Support Staff |
| **Ministry of Planning and International Cooperation (MoPIC)** |
| H.E. Vice Minister Ministry of Planning and International Cooperation |
| Deputy Minister International Cooperation |
| Deputy office Director |
| Director General of Energy and Industry |
| Director General of NGOs at the Ministry of Planning & International Cooperation |
| Director General of the Directorate of UN Organizations |
| Director of the Fisheries Directorate |
| Director of the Monitoring Directorate |
| Food Security Information System |
| Food Security Technical Secretariat Head - Aden |
| Food Security Technical Secretariat Head - Sanaa |
| General Director |
| General Director |
| General Director |

| |
|---|
| General Director - Agriculture and Fisheries |
| Head of Food Security Technical Secretariat Office |
| Head of Water and Sanitation |
| Assistant Deputy |
| Coordinator |
| Minister Office Assistant |
| Ministry of Fish Wealth |
| Chairman of the Technical Committee and Consultant |
| Consultant |
| Deputy Minister |
| Deputy Minister Projects Programming Sector |
| Deputy Minister Traditional Fishing Sector |
| Director General of Information Center |
| Director General of Planning |
| General Director |
| General Director of International Cooperation |
| **Agricultural Cooperative Union** |
| Chief of the Agricultural Cooperative Union |
| Head of Agricultural Affairs Department |
| Head of Cooperative Coordination Unit |
| Programmes |
| **Engineers Association & Potato Seed Company** |
| Director General of Potato Seed Company |
| **Food and Agriculture Organization of the United Nations** |
| FAO Representative in Yemen |
| Assistant FAO Representative (Programme) |
| Programme Unit |
| **Kodan Research Center** |
| Senior research Specialist |

| **National Water Resources Authority** |
|---|
| Head of National Water Resources Authority |
| Deputy of National Water Resources Authority |
| **Research Authority - Post Harvest Technology** |
| Director General of Food and Post-Harvest Research Center |
| **Tihama Development Authority** |
| Agricultural Resources Specialist |

Note: a variety of other individuals (farmers, women, farmers organization leaders, experts, private sector actors, etc.) not detailed here were also consulted in topics related to this proposal. These consultations took place in the course of SAPREP activities and also the interaction of proposal team members with these individuals.

**ANNEX 2: Summary of Institutional Public Consultations with SFD, SMEPS, SAPREP and MAI**



# ❑ METHODOLOGY AND APPROACH

**Conducting a qualitative field questionnaire is dynamic, but also affected by many factors that must be proactively addressed by the interviewer.**

**Methodology:**
FAO has conducted a public consultation with different experts and consultants from MIA, SFD, SMEPS and SAPREP (in total 43 agriculture engineers were consulted 10 from MIA, 13 from SFD, 10 from SMEPS and 10 from SAPREP) worked to supervise horticulture and agriculture activities.. Also FAO has conducted initial consultation with previous farmers beneficiaries benefited from previous interventions (in total 16 farmers were consulted, 10 from SAPREP, 5 from SMEPS and one from SFD).The overall objective of this initial consultation was to anticipate the expected impacts, gaps, current pesticide practice, use of fertilizers and use of indigenous pest control practice and knowledge to document stakeholders concerns and lessons learned with reference to project planned interventions and to anticipate the mitigations measures, the stakeholders' public consultation was conducted on the use of pesticides,. After the stakeholders' consultations, the issues raised have been integrated in this PMP

**Consultation Approach:**
When embarking on a piece of qualitative questionnaire to explore the topic of intuitive decision-making, we felt armed with the research methods and knowledge necessary to conduct a sound public consultation. Since then, we have used the "nuts and bolts" i.e. using all capable means of conducting qualitative questionnaire. Consequently, one of the more important outcomes from our qualitative public consultation was the accumulation of knowledge gained about a particular data collection method that we had employed in this consultation—WhatsApp groups.

We found it useful to communicate our interviewees ahead of time to participants, an email sent to the participating entities MIA, SFD, SMEPS and SAPREP for giving them an overview about the objective of this study, and the objective to reach.

The above mentioned entities have nominated number of farmers and field consultants belong to different local organizations. FAO, in collaboration with MIA, SFD, SMEPS and SAPREP conducted initial consultation with previous beneficiaries benefited from previous interventions (in total 16 farmers were consulted, 10 from SAPREP, 5 from SMEPS and one from SFD) and consultants (in total 43 agriculture engineers were consulted 10 from MIA, 13 from SFD, 10 from SMEPS and 10 from SAPREP) worked to supervise horticulture and agriculture activities.

The overall objective of this initial consultation was to anticipate the expected impacts, gaps, current pesticide practice, use of fertilizers and use of indigenous pest control practice and knowledge to document stakeholders concerns and lessons learned with reference to project planned interventions and to anticipate the mitigations measures, the stakeholders' public

consultation was conducted on the use of pesticides,. After the stakeholders' consultations, the issues raised have been integrated in this PMP.

Once we, FAO, reached the list of nominees, they had been divided into groups based on two consultation categories institutional and farmer questionnaires. Some send their responses within a week, some two weeks and within a month and more. We, had no choice but to be patient and understanding to their agricultural, economics, and geographical circumstances. The challenge was inability of some farmers to use Microsoft word nor excel, an immediate action was taken and made for this obstacle shifting to a second mean of data collection, "Phone Interviewing".

Telephone interview is one of the easiest data collection methods or tools when the interviewer communicates with the respondents on the telephone in accordance with the prepared questionnaire. As a medium for conducting interviews is becoming an increasingly popular data collection method, it facilitates the collection of detailed personal data that provides a high degree of response quality; furthermore, the opportunity for probing deeply into issues, and relatively low refusal rates from participants, and may improve the response rate, and to increase the transparency of the findings, too. Although of this method easiest, the following challenges still remain:

1. Starting contacting the targets interviewees on 28 April 2021, meets middle of Ramadan when the rainy reason has started. The farmers were very busy, and barely find time to participate in the public consultation whatever was the method used.
2. Weak covering of mobile and internet networks
3. Lack of participant's (farmers) knowledge in IT especially to fill the questionnaire in Word format using the smart phones.

This data collection medium has clear and distinct advantages, such as providing both interviewer and interviewees with flexibility and access that is unavailable through traditional methods and many of the challenges of telephone interviewing may simply be the result of a natural trade off that exists with respect to all data collection methods. In order to safeguard against some of the inherent weaknesses of this method

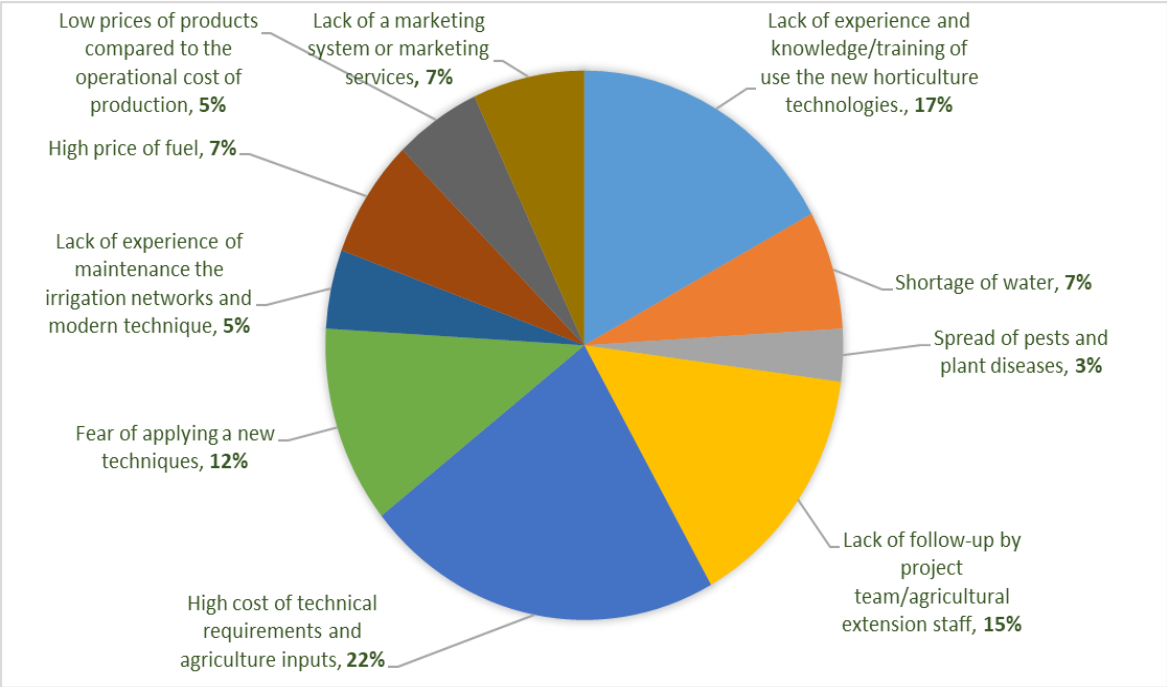
## ❑ OUTCOME OF THE CONSULTATIONS

Q1. Many horticulture sub-projects are being funded and implemented by various implementing agencies. Based on your experience in implementing previous sub-projects, what are the main challenges faced by farmers applying new horticulture technologies?

Q1 **Key Findings**

The top three of challenges faced by farmers applying new horticulture technologies are high cost of technical requirements and agriculture inputs, lack of experience and knowledge/training of use the new horticulture technologies and the lack of follow-up by project team/agricultural extension staff

Figure 1. % of challenges faced by farmers applying new horticulture technologies?

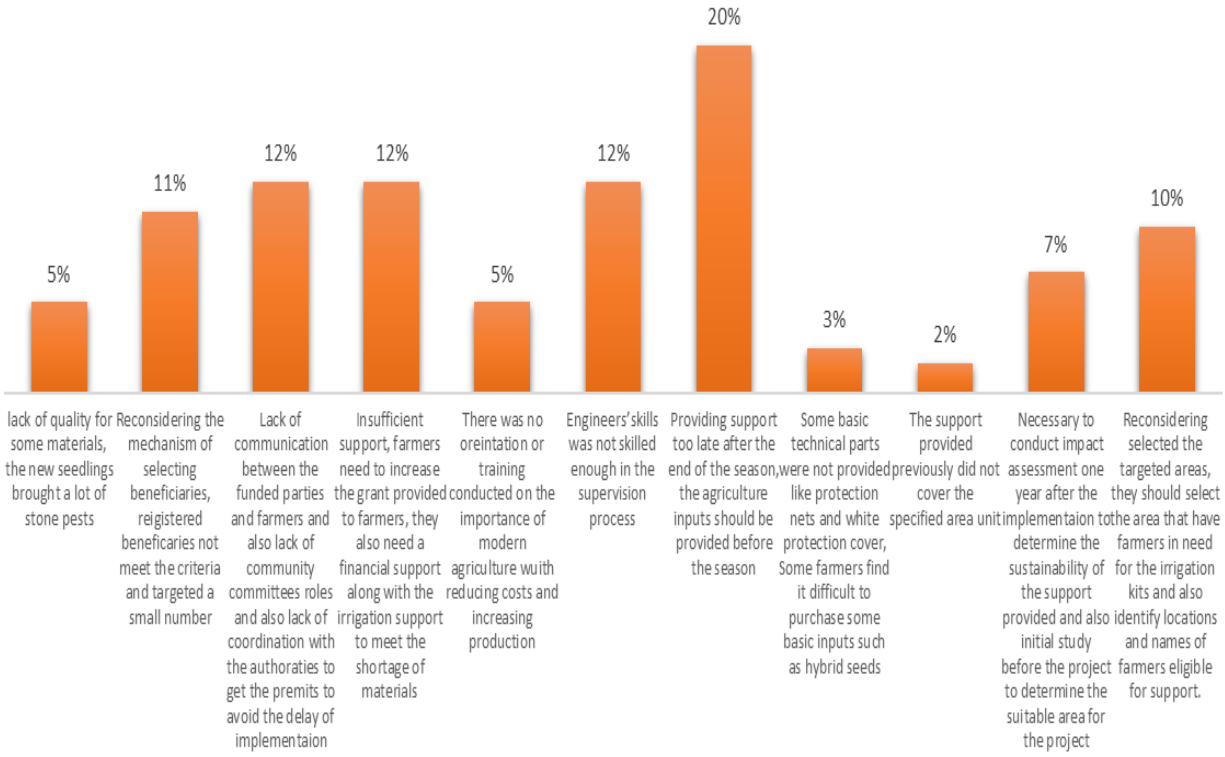


Q2. From your perspective, what are the gaps in support provided previously to horticulture farmers, and how could these gaps be addressed (and avoided) moving forward in new projects? Please discuss.

Q2

## Key Findings

The top gaps identified by the respondents are the delay of providing the support after the end of season, the insufficient support and the lack of communication between the funded parties and farmers and also lack of community committees roles and also lack of coordination with the authorities to get the permits to avoid the delay of implementation and also the engineers 'skills was not skilled enough in the supervision process.

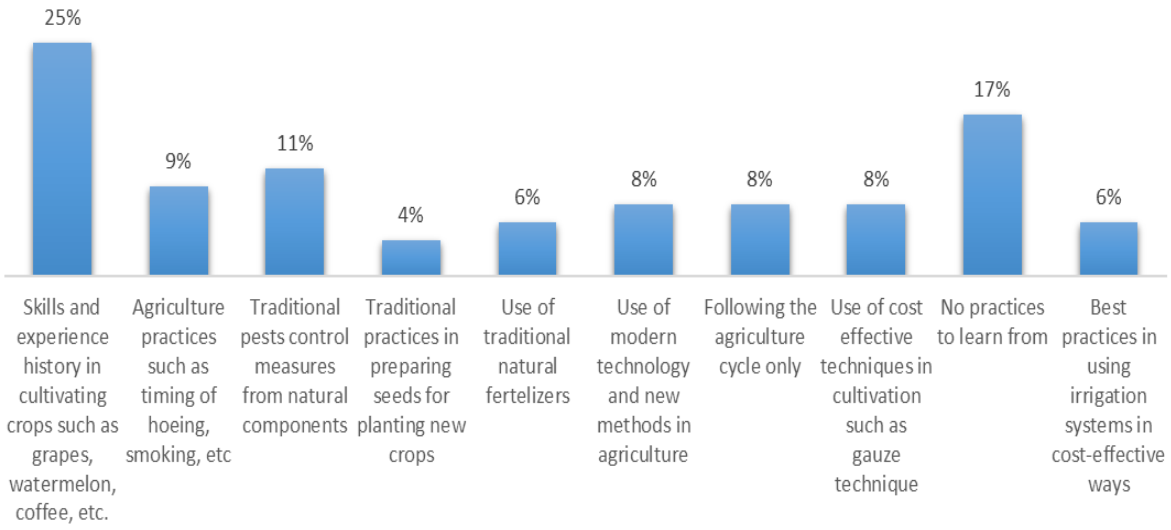


Q3. Are there any indigenous, best traditional and agronomical practices currently being used by farmers and documented as lessons learned which could be useful for other farmers under the new project interventions?

## Q3 Key Findings

There are different traditional approaches and practices that are identified and acknowledged by the respondents. They are mainly related to best traditional practices in the cultivation of crops including fruits, coffee and vegetables (25 percent). In addition, other practices are identified related to using natural fertilizers and pests control techniques in different locations. However, 17 percent of the respondents mentioned that there are no lessons learned and most practices by farmers are wrong.

Figure 3. Traditional approaches and practices

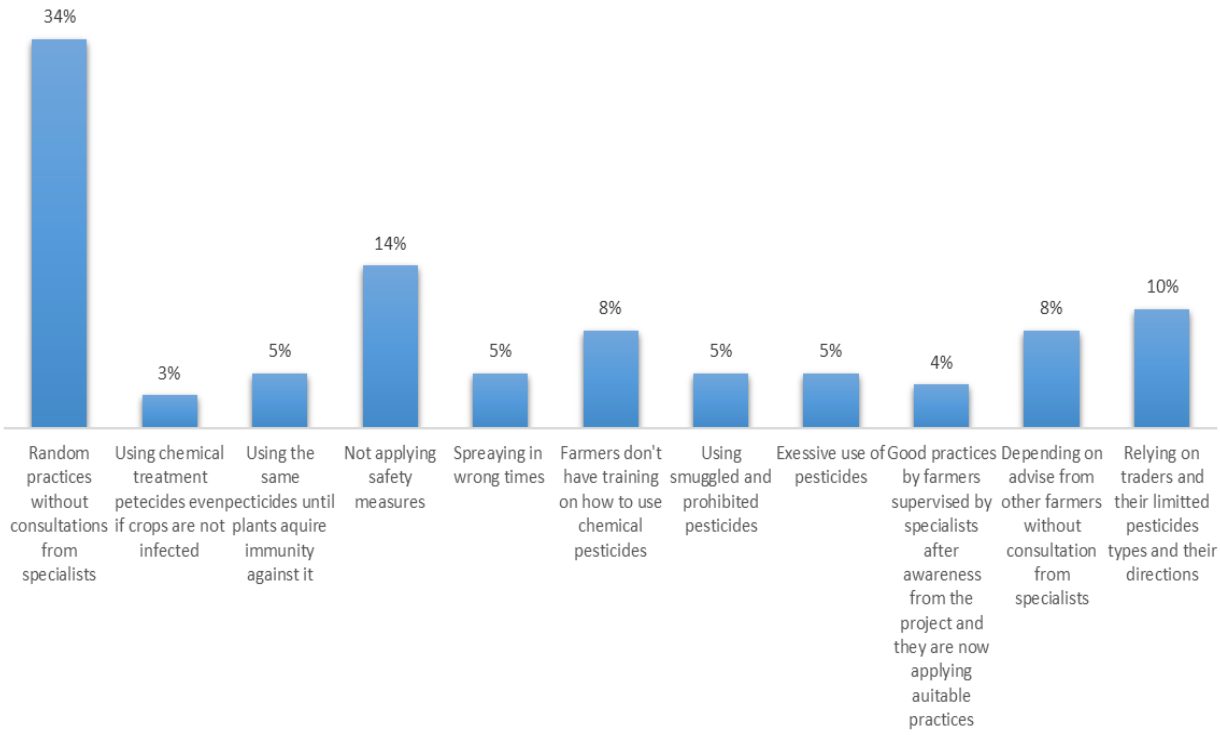


Q4. Kindly describe the current practices of farmers and their use of pesticides, including how they select appropriate pesticide types?

Q4 **Key Findings**

The current practices of farmers related to selecting and using pesticides are random. The results of the qualitative analysis showed that random use of pesticides is the main theme with 34 percent. Safety and precaution measures are not applied by most of the farmers, which is the second dominant theme (14 percent). Farmers don't have training or proper awareness about how to use pesticides and they use the same products to treat their crops multiple times with considering the immunity of plants against the pesticide and their impact on health and the environment. Most information is obtained from the retailers and other farmers without consultation from the specialists. Only 4 percent of the data indicated that farmers' practices have improved and they rely on specialized consultations

Figure 4. Current practices of farmers



Q5. Have you ever noticed farmers mixing pesticdes together (e.g. more than just one type of pesticide)? If yes, what would be your advice to address this?

Q5 **Key Findings**

24 out of 41 responses (98%) noticed farmers mixing pesticides. All the advices comes under four categories; 51% provide awareness/training, 21% advise not to mix pesticides, 11% Choose appropriate pesticides for each pest and 17% to active the role of agricultural extension.

Figure 5. Advices categories

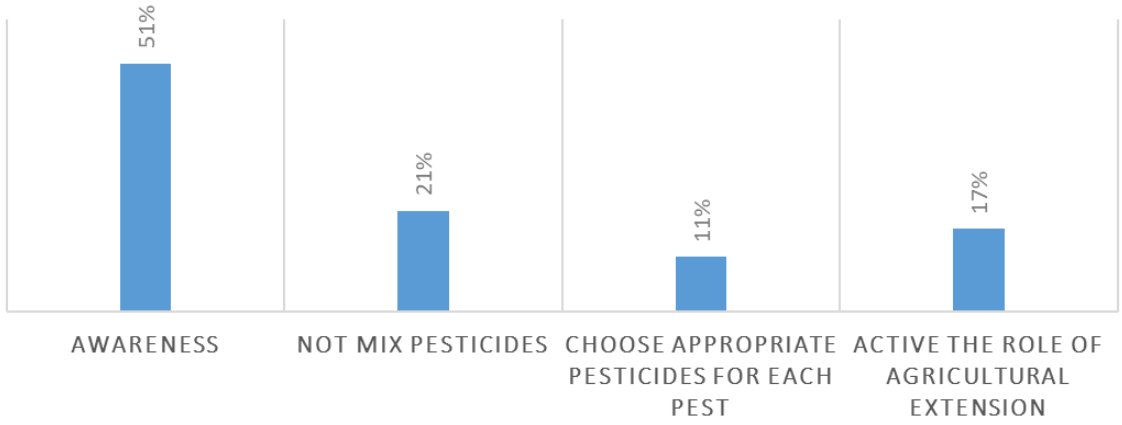



Table 1. Details of advice

| Category | Advice |
|---|---|
| Active the role of agricultural extension | I advise that the control process be carried out under the supervision of agricultural specialists, because of the bad effects on the plant in the first place |
| Active the role of agricultural extension | to focus on agricultural extension. |
| Active the role of agricultural extension | to provide agricultural consultants, especially in areas of productivity and large valleys. |
| Awareness | Raising farmers and sellers' awareness through extension and publishing awareness leaflet to get them aware of the random mixing risks. |
| Awareness | Awareness campaigns must be carried out for farmers and pesticide sellers to aware them from the dangers of random mixing. |

| Category | Advice |
|---|---|
| Awareness | To reduce these practices, it is necessary to educate farmers through media, activate agricultural guidance and link farmers with specialists or extension engineers. |
| Awareness | to convince farmers on the dangers through experiments in (Farmer Field Schools). |
| Awareness | to work continuously on awareness programs in more than one region or more than one season. |
| Awareness | All current practices in the use of pesticides are random. There are no practices for using pesticides correctly. |
| Awareness | Farmers use pesticides in a random way without referring to the competent authorities. Experimentation was prevented by sellers of agricultural inputs, and the spraying is carried out in a random manner without using occupational safety |
| Awareness | The farmer has an idea of sweeping pesticides that eliminate all insects or pests and achieve rapid profitability without awareness of the consequences of their health, environmental and economic damages. Generations of pests will be resistant besides of the environmental pollution of soil and water. |
| Awareness | "Their use of pesticides was random and in large quantities before the project intervention. Awareness and extension sessions should conduct on a continuous basis for all farmers |
| Awareness | To address this is the work of continuous awareness programs in more than one area or more than one season |
| Awareness | Conducting field training and rehabilitation courses for farmers on how to use pesticides. |
| Awareness | To address this is the work of continuous awareness programs in more than one area or more than one season |
| Awareness | Comprehensive awareness and precautionary measures; and a complete cycle starting from the monitoring authorities, passing through the extension and awareness processes through their various audio and visual means such as bulletins, radio, etc. |
| Awareness | The requirement to implement horticultural projects to restrict the use of pesticides. Allocating funds and support for raising awareness and studies for these risks. Require the owners of private shops to raise awareness. Encouraging the use of natural pesticides. |
| Awareness | Advice: Adapting the indicative program through scientific, religious and moral guidance to farmers as well as pesticide dealers. |
| Awareness | By knowing the cause of the confusion, the matter can be cured. For example, if the confusion is out of ignorance, then raising awareness about the danger. |

| Category | Advice |
|---|---|
| | Sometimes, what they are doing is the solution. But, if the reason is to save effort and labor, it is either by arranging control programs, or by educating the farmer about the conditions of mixing pesticides, and the precautions to be avoided." |
| Awareness | to intensify awareness programs on the media and on social media, print brochures and distribute them to farmers, print awareness phrases and hang them on billboards at entrances of cities and in the vegetable and fruit markets in the capitals of the governorates and district centers, and activating, encouraging and supporting initiatives that are based on this great work. |
| Awareness | Awareness through the role of the agricultural extension system and the establishment of courses for farmers. |
| Awareness/ Active the role of agricultural extension | Excessive use of pesticides and in double quantities, and choosing is made through experience from a farmer to another farmer and not by extension staff or specialists. |
| Awareness/ Active the role of agricultural extension | awareness must be raised, and activate the role of agricultural extension |
| Awareness/ Active the role of agricultural extension | Awareness on the role of the agricultural extension system and the conducting courses for farmers. |
| Awareness/ Active the role of agricultural extension | Awareness of farmers about the harms of mixing pesticides and its reflection on the efficiency of pesticides and on human and animal health Awareness of pesticide dealers about the harms of mixing pesticides and encouraging them to educate farmers about that Requiring pesticide stores to abide by the applicable law regulating the circulation of pesticides and activating the role of the competent engineer supervising the store, and this can only be achieved by combining the efforts of the local authority and the concerned authorities. |
| Awareness/ Active the role of agricultural extension | Awareness of farmers about risks of mixing pesticides and its reflection on the efficiency of pesticides, on human and animal health. Awareness of pesticide dealers about risks of mixing pesticides and encouraging them to educate farmers. Storing pesticide sould be applicable with the law of regulating the circulation of pesticides and activating the role of the competent engineer supervising the store, and this can only be achieved by combining the efforts of the local authority and the concerned authorities. |
| Awareness/ Choose appropriate pesticides for each pest | Training farmers to choose pesticides for each pest as they are not aware of how to choose the pesticide, insect and fungal pests, and the lack of nutrients and pests. |
| Awareness/ Choose appropriate pesticides for each pest | My advice to address this is the work of continuous awareness programs in more than one area or more than one season. Treating the pest and recommending the use of the appropriate pesticide ...cancers and other chronic diseases as a result of the accumulation of |

| Category | Advice |
|---|---|
| | pesticides in the human body. And the occurrence of respiratory problems in humans. Other diseases Not to repeat spraying with the same pesticide |
| Awareness/ Choose appropriate pesticides for each pest/Not mix pesticides | 1- Repeated spraying of pesticides more than once during the season. 2- Wrong timing of spraying. 3- No consulting specialists while purchasing the pesticide. 4- No reading the label on the pesticide package before use. 5- No taking care of the safety period. 6- No adhering to the recommended dose. 7- Use of smuggled and prohibited pesticides. 8- Using pesticides for stimulating purposes other than those designated for pest control. 9- No wearing protective clothing while spraying. 10- Excessive spraying without taking into account the coverage of the entire surface of the plant. 11- Asking children to spray pesticides. 12- Random mixing of more than one pesticide. 13- Inappropriate storage methods. 14- No using safety tools while spraying pesticides. 15- No right method to dispose of pesticide containers. 16- Choosing the appropriate pesticide for pest control under the advice of specialists. 17- Do not mix pesticides, spray in the early morning or before sunset. |
| Awareness/ Choose appropriate pesticides for each pest/Not mix pesticides/Active the role of agricultural extension | The random use of pesticides from trading places without consulting a specialist make agricultural pests gain immunity from these pesticides. Repeated use of the same pesticide. Mixing pesticides with each other with no knowledge. |
| Choose appropriate pesticides for each pest | choosing the pesticide and changing the active substance between two to three sprays to avoid pests resistance |
| Choose appropriate pesticides for each pest | I strongly recommend that the most important support include preventive and curative pesticides for each crop, so that the farmer sees with his own eyes the effective results in protecting the crop with the least amount of pesticides used, and gains experience in choosing the appropriate pesticide to protect his crop and never need the recommendations of traders. |
| Not mix pesticides | Not to mix fungicides and insecticides together. |
| Not mix pesticides | Not recommend mixing pesticides, or we can recommend mixing an insecticide with a fungicide when the infection is an insect, and a fungal is present in the same field and this is experimented 100% |
| Not mix pesticides | Not to mix pesticides at all, because of the damage they have to the plant and their ineffectiveness. |
| Not mix pesticides | We recommend spraying each pesticide separately, especially copper pesticides and pesticides that contain proven oils. |

| Category | Advice |
|---|---|
| Not mix pesticides | Farmers should not mix pesticides of more than one type, Refer to the specialists and take samples of the problem and take the appropriate treatment from it |
| Not mix pesticides | Not all pesticides are mixed, because they differ in the effective chemicals, and differ in its type either insecticides or fungicides. |
| Not mix pesticides | Not to mix Sulfur with any type of pesticide, but sprayed alone, do not mix the copper-containing pesticide with any other pesticides, Do not mix fungicides with foliar fertilizers, Do not mix foliar fertilizers with copper pesticides. |
| Not mix pesticides | The advice is not to mix pesticides at all, because of the damage they have to the plant and their ineffectiveness. |
| Not mix pesticides | My advice is to provide him with some information on the practices of mixing two different pesticides |

Q6. What is your opinion (considering both pros and cons) about the new techniques (e.g., agriculture tunnels, etc.) being promoted? Are there opportunities for improvement? If yes, please describe.

Q6 **Key Findings**

All opinions of respondents listed as it they are in the below table

Table 2. Opinions on the new techniques being promoted and opportunities for improvements

| Respondent's opinions |
|---|
| I have not practiced such, but it works to protect some crops from pests. |
| Yes, there are errors during cultivation. Failure to choose the appropriate variety during cultivation. |
| There are a number of mistakes that occur during construction and cultivation, for example, not choosing the appropriate variety during cultivation. |
| This technology is new and has not spread much and we cannot know its pros and cons. |
| Yes 1- Using the tunnels that have environmental conditions such as temperature, lighting, humidity, etc. |

| Respondent's opinions |
| --- |
| The application of tunnels in Tihama plain is carried out without any recording of the negatives and without any treatments; for example, the spread of fungal diseases such as downy mildew, and not making any modification to the technology to avoid this. |
| My opinion in using modern technologies in agriculture is to produce vegetables away from infection of diseases and insect pests and with limited quantities of pesticides used during the growth period. Also, agriculture in tunnels accelerate the vegetative growth of the plant. Among the opportunities for improvement is the replacement of the white mound instead of the white gauze for cultivation in spending, as well as the replacement of the white mound instead of the green mound in the greenhouses, etc. |
| Yes, agriculture with modern technologies now in Yemen is the best at all compared to the reality of traditional agriculture used by the majority of farmers. In fact, it is not agriculture. It is a kind of absurdity. There are no economic, environmental, effort, time, or resource depletion accounts....etc. Agriculture with modern technologies achieves great benefits in reducing production costs to the equivalent of about 80%, reducing resource depletion, the most important of which is water. The technical roles that can be achieved through the use of many modern technologies, for example drip, and salt in mitigating the effects of salinity. Tunnels have a special status from our previous experiences. We gave many recommendations in this aspect… they unite the way that should be followed in tunnel farming, using gauze. The method of use must be determined, taking into account the prevailing environmental conditions. Yes, there are opportunities for improvement. |
| The new techniques have much more positives than negatives for farms and for the environment, but their effectiveness can be improved by increasing the follow-up period by the agricultural engineer before, during and after the agricultural season. |
| I have not practiced such, but it works to protect some crops from pests. Yes, there are errors during modern technologies, especially irrigation networks and tunnel cultivation, very excellent in a number of positive aspects, namely rationing irrigation water, reducing the use of pesticides and producing crops with excellent marketing specifications. But, the farmer's lack of awareness of its importance causes major defects in it by not protecting it from wild animals that cause damage and the occurrence of gaps in the agricultural cloth, as well as his lack of awareness of the irrigation cycle that must be followed during the growth of the crop, which may lead to increase humidity under the tunnels, which in turn helps the growth of fungi in the crop.....and there are opportunities for improvement by increasing the process of training and awareness. |
| Yes, yes, pesticides were made from sage leaves (neem extract) as well as the seeds of sage leaves and an explanation for the farmers about the choice of pesticides and how to spray and the amount of pesticide / liter of water. Spraying each pesticide separately and spraying fungicides with copper and hot main with copper pesticides, so as not to cause burning the crop and spraying pesticides with foliar fertilizers, and copper compounds during crises / Introducing farmers to how and signs of insect pests of all kinds and what is the appropriate pesticide for its cost. Introducing farmers to how and signs of insect pests of all kinds and what is the appropriate pesticide for each pest insects are immune to these pesticides. Do not mix more than one pesticide with each other so that the toxicity of the pesticide does not decrease or the toxicity of the pesticide increases, or it becomes another pesticide. The safety period for each pesticide. Not using the starter box for other things and burning the can and pesticide packaging. Do not place it in the sun or near children, the spraying process, the storage process, and others. Several topics continued. It was noticed that farmers do not have enough information about pesticides, spraying and the amount of pesticide, as well as mixing pesticides. This was a phenomenon before, but we recommend conducting additional courses for them. |
| Yes, I noticed that, and my advice is summarized as follows: 1- Avoid random mixing of pesticides because this may negatively affect and reduce the effectiveness of the pesticide. 2- Consult specialists before purchasing the pesticide. 3- Ensure the safety period. 4- Read the label of the pesticide container before use. |
| Yes, holding courses for senior farmers, engineers and owners of pesticides selling on the dangers of mixing pesticides and not knowing what pesticides are allowed and not allowed. |
| There is a danger of mixing that causes a problem, and we have given advice by spraying each pesticide separately, and if necessary, a test before |

| Respondent's opinions |
| --- |
| Yes, my advice to them is not to mix pesticides during use of more than one type, because this causes chemical reactions and may affect the effect of the pesticide and may affect the plant and the environment in general. |
| Through our field follow-up, we noticed a lot of farmers, raising our awareness to farmers. The seller of agricultural crops is the reference for farmers. Prohibited pesticides with a long safety period are mixed with fungal disinfectants, and the period between spraying and the other is less than a week. Samples of the problem and take the appropriate treatment from it, giving the recommended doses and taking the safety period of the pesticide |
| This is available to farmers, and as previously we stress that the farmer resorts to agricultural guidance to make him aware of the appropriate pesticide, in the right quantity and at the right time when absolutely necessary, taking into account the necessary precautions for safety from their harmful impact. We do not encourage the use of pesticides in the first place because of their harm to humans, animals and the environment. In cultivating it inside trenches (tunnels) to prevent insects from reaching it from eating it or transmitting some diseases to it, such as the white fly that transmits yellowing disease to cucurbits, and this idea we consider successful and tested. |
| Many farmers, but most of them, mix pesticides with more than one effective substance, especially when there is more than one infection and it needs different pesticides, such as the presence of whiteflies and fruit worms, for example, but some may mix fungicides and insecticides in order to reduce costs |
| Yes, the mixing is done randomly and unknowingly, and this is wrong, such as mixing insecticides with fungi, or fungal with fungal, or insecticidal with an insecticide wider, foliar fertilizer, etc. Farmers in Khairan Muharraq have been trained about the dangers of mixing pesticides. |
| Yes: they always mix to increase the efficiency of the pesticide and save time and effort, according to what they have been taught by pesticide sellers. They were made aware that the mixing is incorrect and the pesticides turn into a negative pesticide that affects the plant, the crop and the human being by transforming it from a vascular image to a toxic one. There are pesticides that should not be resolved by any Siakhr. Like sulfur and a pesticide that carries copper elements as well as spiders |
| My opinion is in agriculture using modern technologies to produce vegetables away from diseases and insect pests because it provides a suitable atmosphere for plant growth while providing protection, a process of accelerating growth, and the use of disease-resistant varieties that need small amounts of pesticides during the growth period. But one of the disadvantages of gauze is that it is not used for more than one season. As well as agriculture in expenditures that accelerate the vegetative growth of the plant. Among the opportunities for improvement is the replacement of the viral white mound instead of the white gauze for cultivation in special expenditures for planting and raising tomatoes, making a gate and using it for the end of the harvest, as well as replacing the white mound instead of the green mound in the greenhouses, and making holes for ventilation, etc. |
| Yes:- Pros: 1- Provides complete protection for the plant during the first sensitive growth periods, which do not exceed 45 days, and it is suitable for some crops of the cucurbit family such as watermelon and cantaloupe, which are prone to yellowing diseases for which there is no treatment until now. It is considered an optimal solution to protect them. Disadvantages: - Speed affected by strong winds causes rupture 2 - Ease of rupture by animals 3 - Cannot be used more than one agricultural season 4 - High price * Suggested:- The possibility of using other alternatives that farmers can benefit from for more than one season that are not affected by the action of wind or animals such as (polyethylene gauze) |
| It can be distributed to farmers later after training them to implement it themselves. |
| Yes, opportunities for improvement and the introduction of modern agricultural techniques, including gauze and agricultural mulch, and this requires the provision of agricultural supplies in the markets, providing them at reasonable prices, making extension fields that do not convince farmers to use them. |
| The new technologies that are being promoted (especially tunneling) are good techniques, and they have become known to the majority of people. Farmers, so I see that in the event of any new interventions in the field of horticulture, that new areas should be searched |

Q7. From what you have observed during supervision of horticulture activities, what are the main impacts are risks pertaining to pesticides and fertilizer use? This could include, for example, using a fertilizer tank for other proposes; applying pesticides without proper Personal Protective Equipment (PPE); risks of an irrigation pond being covered with polyethylene; etc.

## Q7 Key Findings

We breakdown the answeres into 3 groups, the first group has the impact risks related to pesticides, the second for fertilizers and the third group the impact risks for both use. In the first group the most impact risk (15%) is using pesticides without protective equipment. In the second group, the highest impact risk goes to absence of composting tanks. And for the impact risk for both use, the highest one is using pesticides without protective equipment.

Table 3. Main impacts risks pertaining to pesticides

| Main impacts risks pertaining to pesticides | | |
|---|---|---|
| imapct | Frequency | Proportion |
| Absence of using Safety procedures for pesticides use | 8 | 16% |
| Lack of experiences and knowledge of using pesticides | 6 | 12% |
| Follow wrong harvesting methods | 1 | 2% |
| Incorrect timing for using pesticides | 1 | 2% |
| Spread skin diseases and cancer among farmers. | 5 | 10% |
| Negatively affects human and animal health and may cause death in some cases | 5 | 10% |
| Using pesticides without protective equipment | 15 | 31% |
| Pollute water with pesticides. | 1 | 2% |
| Risks for children and animals | 4 | 8% |
| Environmental effects of using pesticides | 3 | 6% |

Figure 6. Main impacts risks pertaining to pesticides

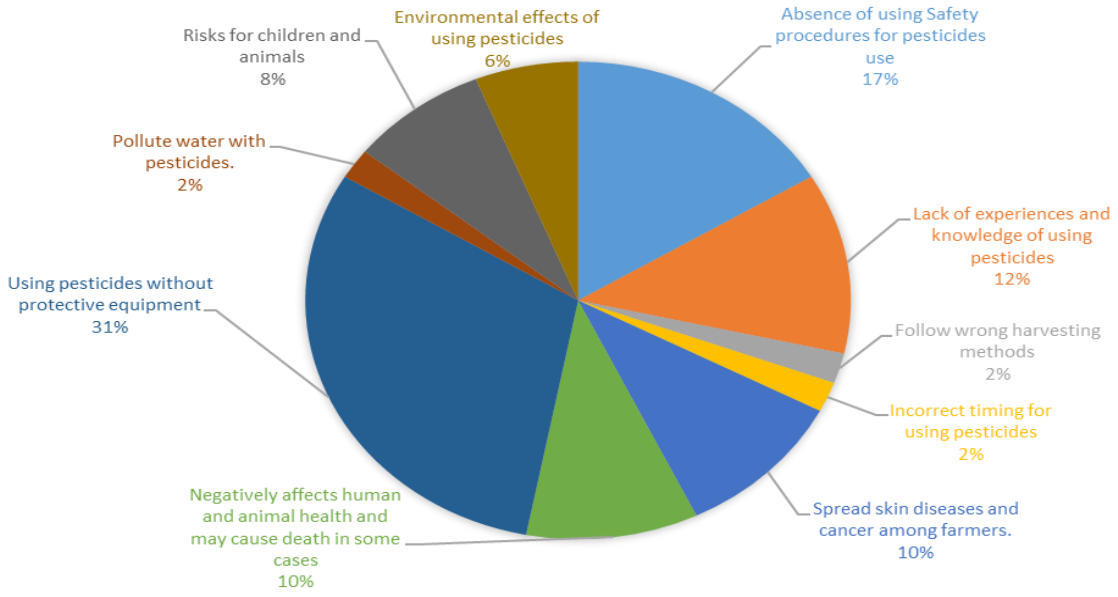



Table 4. Main impacts risks pertaining to fertilizer use

| **Main impacts risks pertaining to to fertilizer use** | | |
|---|---|---|
| **imapct** | **Frequency** | **Proportion** |
| Absence of using Safety procedures for fertilizer use | 1 | 13% |
| Lack of experiences and knowledge of using fertilizer | 1 | 13% |
| Reducing the fertility of the soil | 1 | 13% |
| Risks for children and animals | 1 | 13% |
| Absence of composting tanks | 2 | 25% |
| Environmental effects of using fertilizers | 1 | 13% |
| lack of knowledge of the plant's needs for fertilizers | 1 | 13% |

Figure 7. Main impacts risks pertaining to fertilizer use

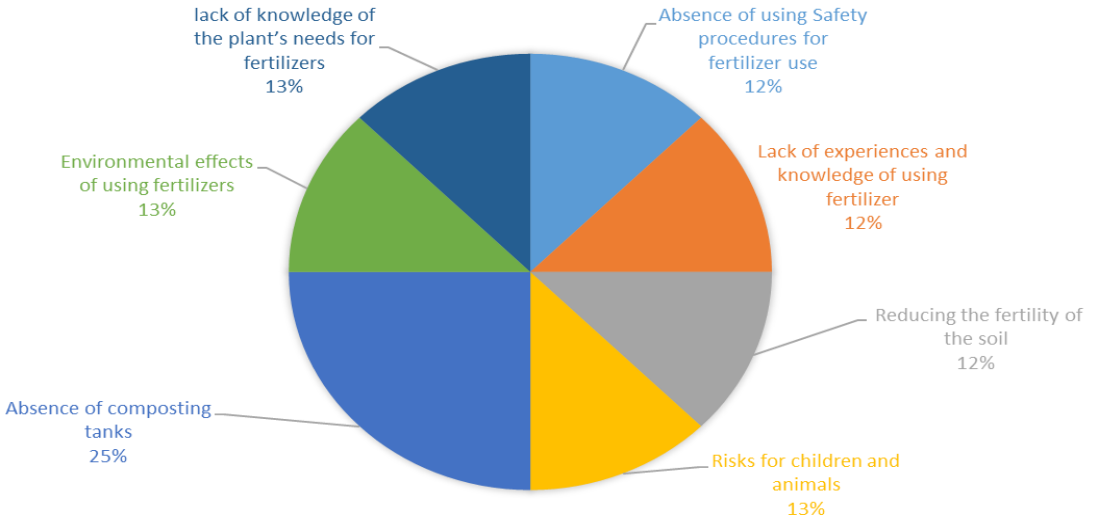
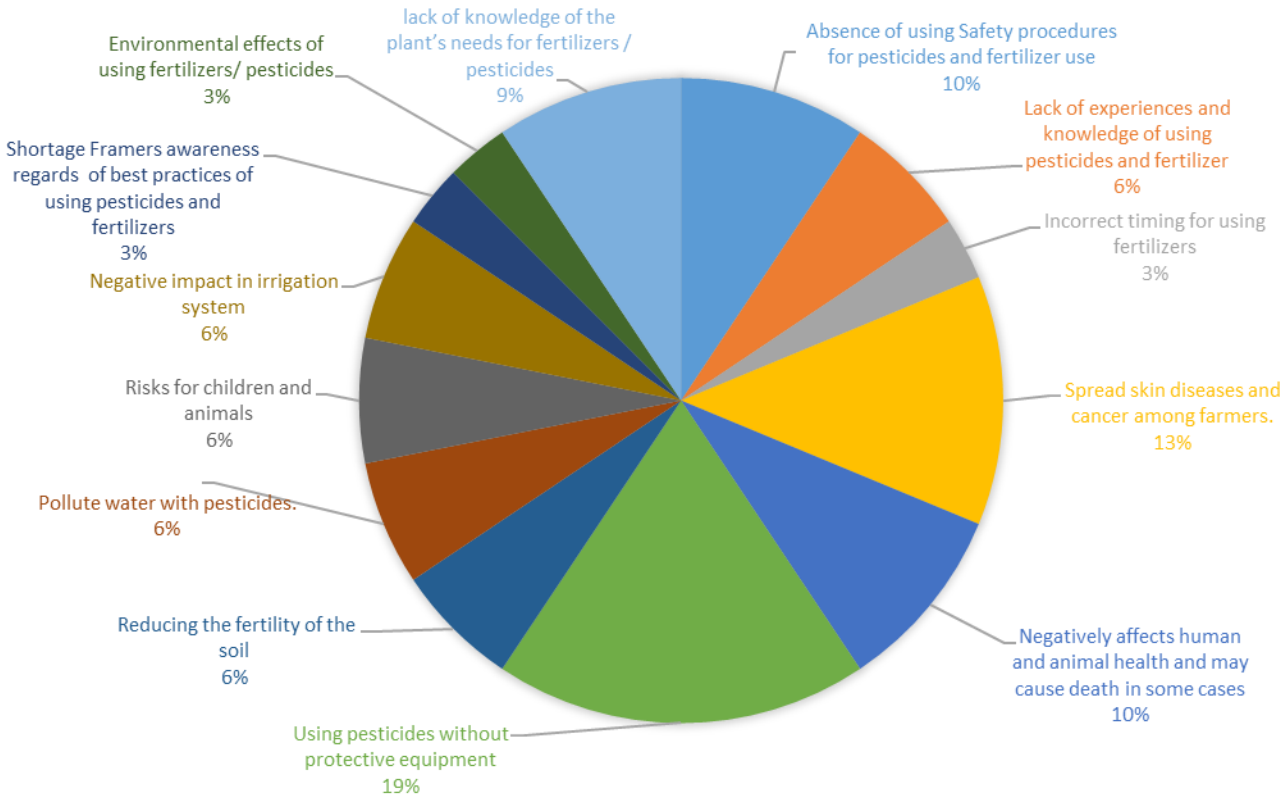


Table 5. Main impacts risks pertaining to both the pesticides and the fertilizer

| **Main impacts risks pertaining to to fertilizer use** | | |
|---|---|---|
| **imapct** | **Frequency** | **Proportion** |
| Absence of using Safety procedures for pesticides and fertilizer use | 3 | 9% |
| Lack of experiences and knowledge of using pesticides and fertilizer | 2 | 6% |
| Incorrect timing for using fertilizers | 1 | 3% |
| Spread skin diseases and cancer among farmers. | 4 | 13% |
| Negatively affects human and animal health and may cause death in some cases | 3 | 9% |
| Using pesticides without protective equipment | 6 | 19% |
| Reducing the fertility of the soil | 2 | 6% |
| Pollute water with pesticides. | 2 | 6% |
| Risks for children and animals | 2 | 6% |
| Negative impact in irrigation system | 2 | 6% |
| Shortage Framers awareness regards of best practices of using pesticides and fertilizers | 1 | 3% |
| Environmental effects of using fertilizers/ pesticides | 1 | 3% |
| lack of knowledge of the plant's needs for fertilizers / pesticides | 3 | 9% |

Figure 8. Main impacts risks pertaining to both the pesticides and the fertilizer

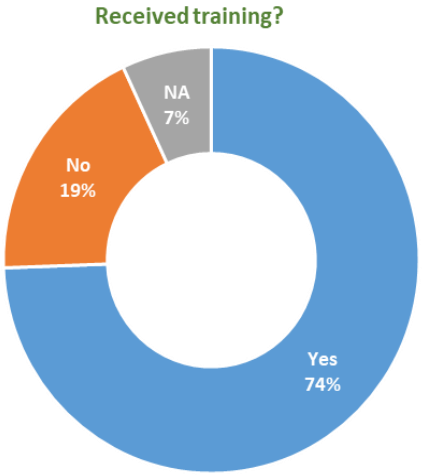


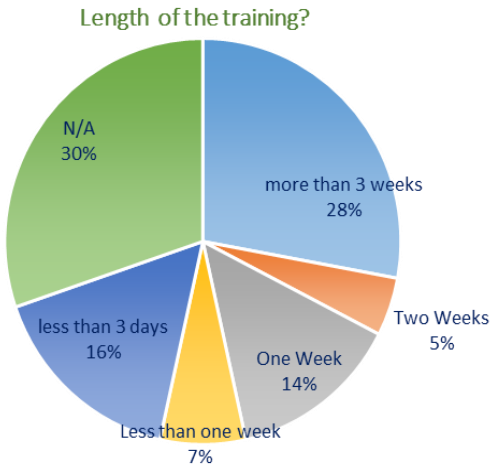
Q8:Have you ever received training on the safe and secure usage, storage, application of pesticides and disposal of pesticide containers, etc. If yes, what was the length and frequency of the training?

Q8 **Key Findings**

1. Agriculture engineers consultants who received training are 74% while 19% who did not received the training and 7% not applicable to the question
2. 70 of the BNF who received the training for different length as figure is demonstrating, some for more than 3 weeks, two weeks, one week or less

Figure 9. Receiving training on the safe and secure usage, storage, application of pesticides and disposal of pesticide containers. And length and frequency of the training



Q9. If you received training, do you feel that the training covered everything you needed to know for your work, or do you feel there were gaps? If you felt there were gaps, please describe them.

Q9

## Key Findings

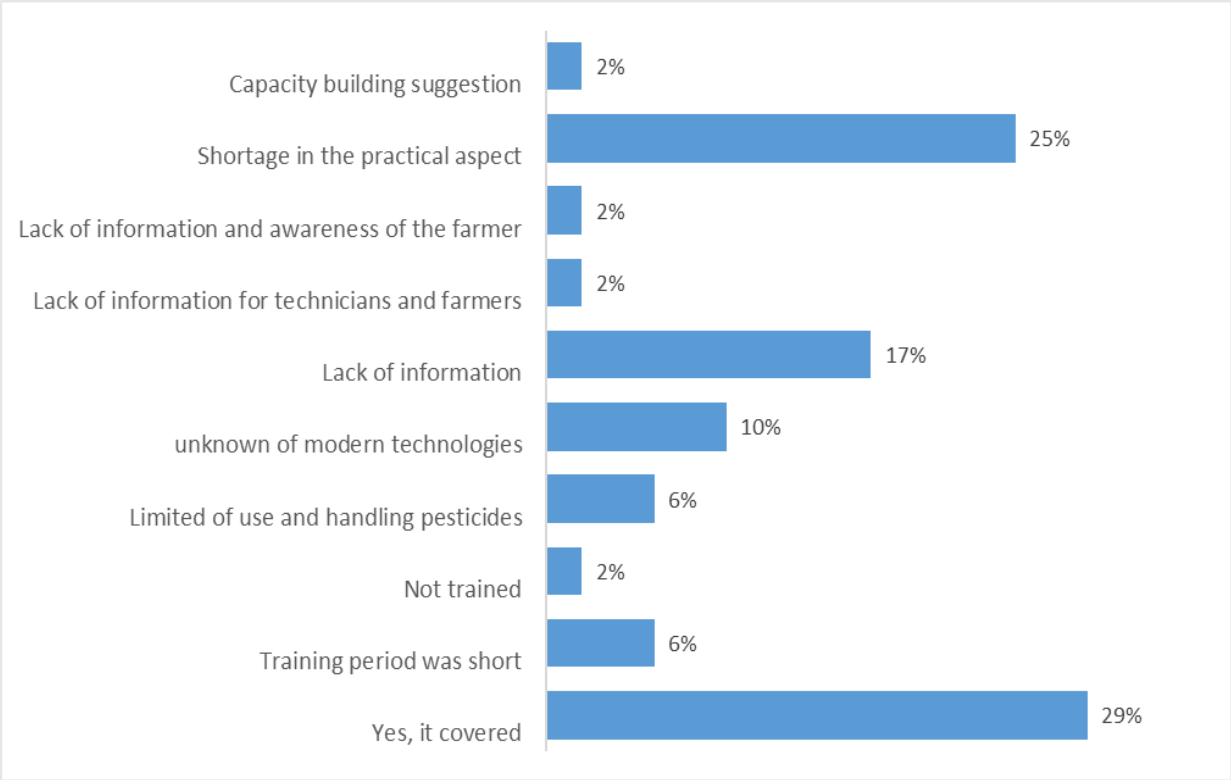
The top three findings are as follows:

I. The training covered the aspects needed. 29%
II. There was a lack in the practical aspect in the training. 25%
III. The training lacks information. 17%

Below are the main gaps:

- The training lacks the practical aspect and mainly depended on the theoretical aspects.
- No training on modern trends in handling pesticides and procedures for pesticides as well as field experiments and how to conduct tests on pesticides so that the type of active substance and its percentage are ascertained to know the correct pesticide, and the ideal stores for pesticides according to the specifications required for storage, incinerators for empty pesticide containers and places for throwing chemical waste.
- The training was sufficient for engineers but not for technicians and farmers
- Practical gaps such as in installing an irrigation network for large areas, and how to install a greenhouse.

Figure 10. Gaps on the training

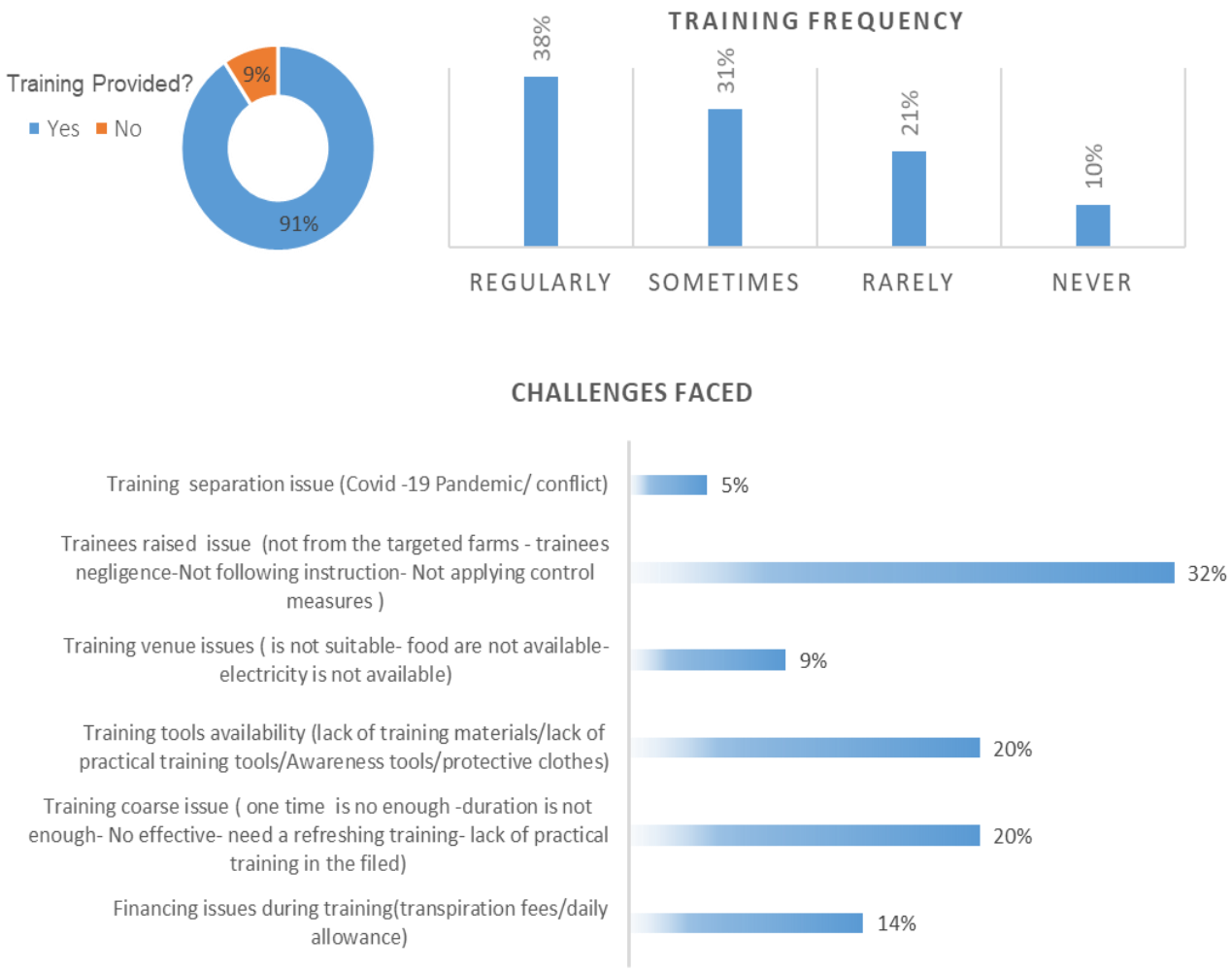



Q10. Do you conduct/provide training for farmers on the safe and secure usage/storage/handling/application/disposal of pesticides and pesticide containers? If yes, how often? And what is the biggest challenge you have with conducting the training?

Q10 **Key Findings**

- Most of the trainees conducted training for the farmer,5% of trainers didn't conduct training at all.
- Training was conducted on regular basis.
- Most of the challenges raised is the duration of training and the need to have a refresher training, the training tools were not available, and the trainees were not cooperative, and finally the trainees faced financial issues.

Figure 11. Provide training to farmers and the challenges



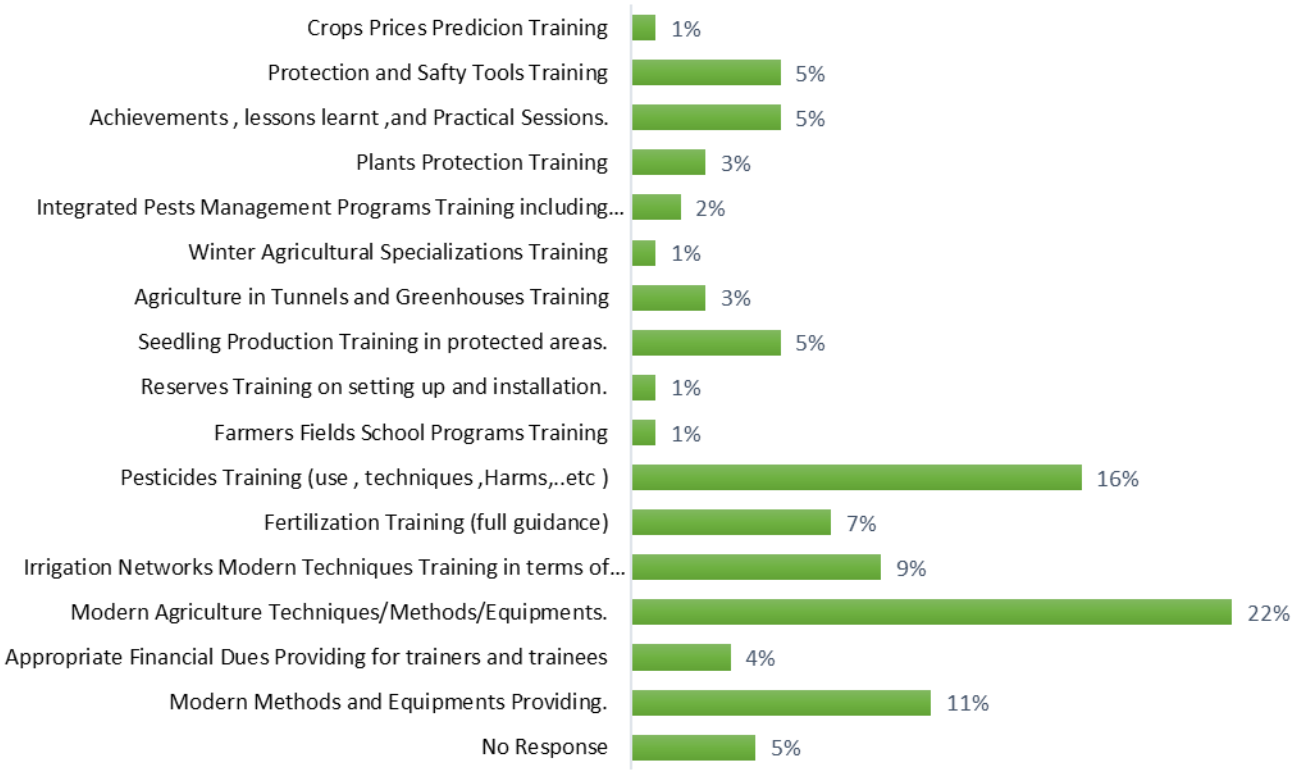
Q11. What do you perceive to be the main training needs for Agriculture Engineers, Farmers, Pesticide Providers, Nurseries, Greenhouses and other related parties involved in the Horticulture activities ?

Q11 **Key Findings**

The Top three needs are following:

1. Modern Agriculture Techniques/Methods/Equipment Training.
2. Modern Methods and Equipment's Providing.
3. Pesticides Training

Figure 12. Needs of training of horticulture activities

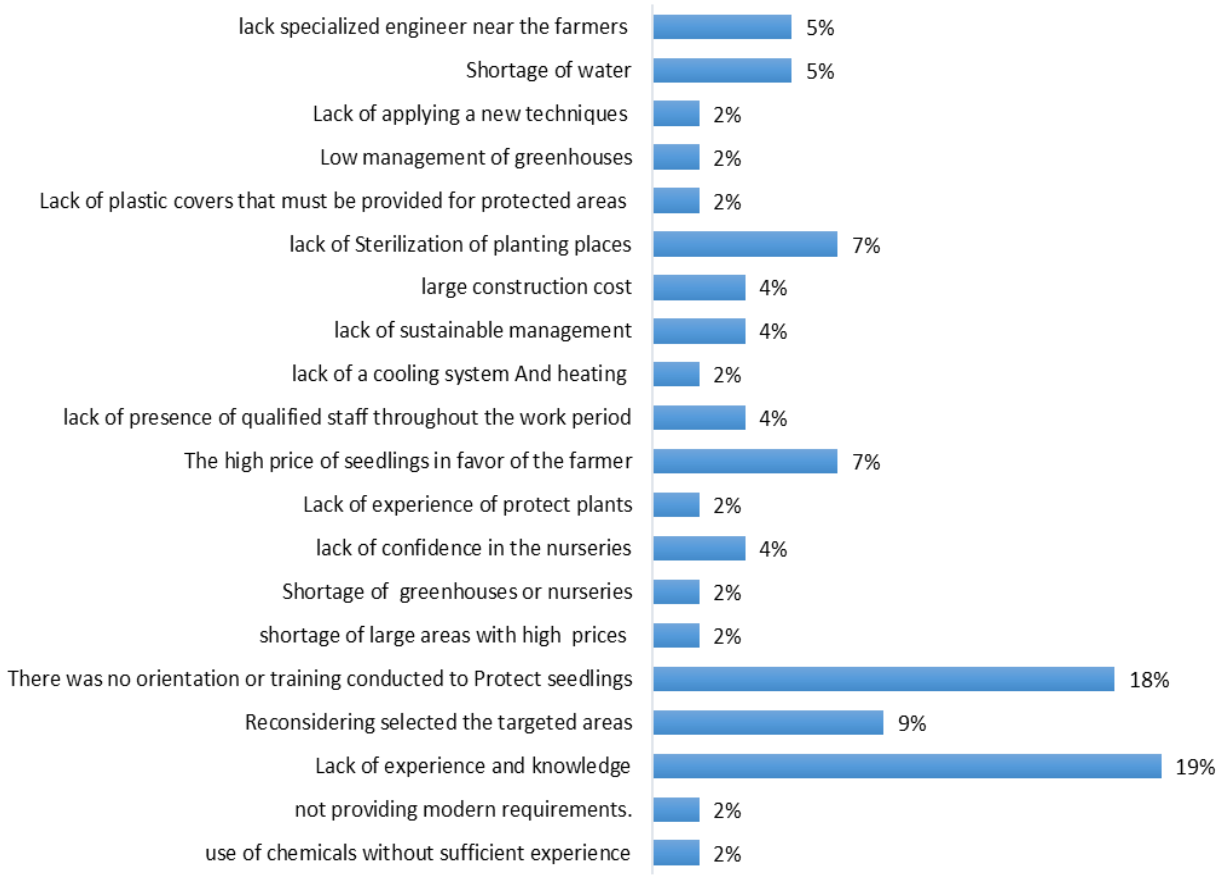


Q12. What are the current mitigation measures in place and observed gaps for managing and using greenhouses and nurseries? Do you have any recommendations to address those gaps and/or to improve the mitigation measures?

Q12 **Key Findings**

The most common challenges faced by farmers are
- ✓ 1. Lack of experience and knowledge.
- ✓ 2. There was no orientation or training conducted to Protect seedlings

Figure 13. Mitigation measures and gaps



Q13. Do you ever apply and use hydroponics (or hydroponic techniques)? If yes, what do you feel are pons and cons? Would you recommend hydroponics and/or do you have recommendations for improvement?

Q13 **Key Findings**

Most of respondents stated that not applied or used the hydroponics before (86%), while a few 14% said they had an experience on how it used with some recommendations listed in the table below:

Figure 14. Apply/Use Hydroponic

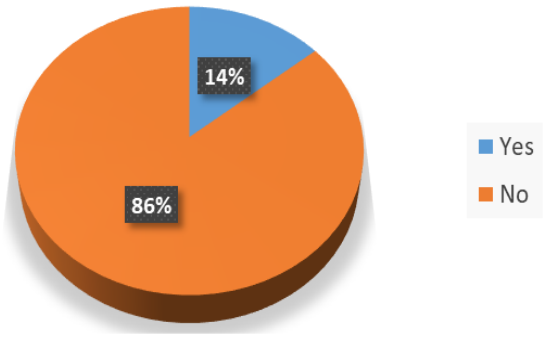



Table 6. Yes, with recommendations

| # of respondent | Yes with a recommendation |
|---|---|
| 1 | I have previously seen and visited a hydroponic system, which is considered the first of its kind in Yemen, Amran governorate. I have all the information and priorities related to its application. |
| 2 | Yes, a research project in a third-year subject at the Faculty of Agriculture. The pros. There are no negatives. |
| 3 | Yes. I got a training course in hydroponics. Its most important positives are the cultivation of agricultural crops in a very clean environment and at the lowest costs for agricultural operations, in addition to reducing the use of pesticides in addition to farming outside the agricultural season. The most important negatives are the large construction cost in addition to the need for great expertise. |
| 4 | The question takes many dimensions to the multiplicity of hydroponics types. But, according to me, yes, I have a practical field experience for several months by an Egyptian team. The training was to work in incubators for growing barley as fodder and it was a successful experience. But, the operational costs are the biggest obstacle in its continuation, also it needs electricity to provide the appropriate environment for cultivation through the installation of cooling air conditioners, and this is main thing that makes the continuation of the project impossible. A feasibility study was done by a colleague and me for this issue after success, but the most important thing we reach is the issue of providing electricity, especially since the project was in Tehama, where the climate is hot and it is rich with livestock. |
| 5 | During my university days, I had a friend who graduated from a study of agriculture without soil (water, gravel) and I helped him in many tasks. It is possible to get rid of soil problems (salinity, poverty or lack of fertility, pathogens such as fungi, wilt bacteria, and nematodes). Significant reduction in the consumption of water and fertilizers, but you need knowledge and a high understanding of the preparation of nutritional solutions, the costs of creating them are high, and you need extensive training in how to deal with them. |
| 6 | Yes, the pros get high productivity per unit area and a high quality of the crop, in addition to the possibility of using this technology in non-arable lands; as well as, on the roofs of houses. The disadvantages are the need for pure materials to make nutrient solutions and a continuous check for PH and salinity in addition to the high initial costs and the need for trained farmers. Yes, I recommend hydroponics and I recommend supporting agricultural input traders to provide tools for hydroponics and conduct training courses for engineers and farmers. |

Q14. Do you have any additional information or recommendations you would like to add for overall improvement of horticulture production/management/projects? If yes, please list them out.

Q14 **Key Findings**

81% of respondents have recommendations on improving the horticulture production which are listed in the table below, while 8% have no any recommendations.

Table 7. Recommendations on improving the horticulture production

| # of respondent | Recommendations on improving the horticulture production |
|---|---|
| 1 | Providing seedlings and improved disease-resistant seeds.<br>Training on grafting high-yield varieties on local assets that are adapted to the environment.<br>Training farmers to use fertilizers and pesticides safely.<br>Training farmers on the use of alternatives to pesticides and integrated control techniques.<br>Providing soft loans to farmers to purchase production requirements such as greenhouses.<br>Establishing orchard farmers' associations to market their products and to address the problem of production devotion. Providing refrigerators and stores for horticultural products. 8- Making brochures for horticultural crops and raising awareness through agricultural media. |
| 2 | Yes - the use of modern technologies - training and raising skills of its staff in various fields. |
| 3 | Yes, disseminating tunneling techniques in the Tihama plain according to environmental conditions and addressing the negatives as soon as they appear |
| 4 | Conducting a prior study of the intervention areas before the targeting process.<br>Enable the work of qualified technical cadres capable of implementing and delivering all necessary information to farmers during the implementation period.<br>Prior coordination with local authorities and humanitarian affairs before the intervention period.<br>No delay in delivering the grant amounts so that the implementing partner can implement in a timely manner .... etc. |

| # of respondent | Recommendations on improving the horticulture production |
|---|---|
| 5 | Yes, provide support to farmers at the appropriate times and in accordance with the agricultural season in the region, the necessity of the presence of the agricultural engineer during the period from preparing for the season until the end of the post-harvest treatment, taking into account the allocations of the agricultural engineer and in accordance with the conditions of time and space during his continuous follow-up to the farmers. |
| 6 | The most important recommendation is to provide irrigation machine, such as solar pumps. |
| 7 | Holding intensive courses for experienced farmers in various agricultural aspects. |
| 8 | Yes, every project must pass through four stages: planning, organizing, implementing, and evaluating. There must be a timetable, a specific budget, specific goals, and good performance. |
| 9 | Holding courses and workshops for agricultural engineers in modern technologies. - Courses for agricultural engineers and senior farmers on the safe use of pesticides, how to use pesticides, and the need to rely on organic pesticides. Providing support to small farmers from irrigation networks, tanks, gauze and arches, in order to achieve self-sufficiency and improve their economic situation in light of wars. |
| 10 | Extending the period of farmers field schools, at least 6 months, in order to keep pace with the season and post-season, and an adequate study of the extent to which techniques are adopted and farmers' behavior change. |
| 11 | We want you to introduce greenhouses to our areas, because of their importance, and we want you to establish nurseries, because our areas in Yafa do not have greenhouses and there are no nurseries. |
| 12 | In order to improve the income of farms and within horticulture projects or others, there must be channels for marketing agricultural production or making refrigerators to preserve production during seasons. |
| 13 | Introducing modern technologies and benefiting from what preceded us, such as filling machines at home and half in the nurseries, to produce vegetables and ornamental seedlings, and using what is known as the flying doctor machine that searches for and diagnoses injuries inside the nursery. We also note the expansion of the use of drip irrigation networks, in this way it becomes possible to cultivate deserts and arid lands. There are also some techniques such as the use of microwaves to provide heat and irrigation of wheat in its cultivation areas (with sea water) and thus obtaining a new type of wheat that has the ability to grow in low-fertility areas. |
| 14 | What was previously answered in Paragraph (13) is the need for workers to have a team of good skills in the use of modern technology. |
| 15 | The recommendations in the agricultural field are many, and there is no space here to mention them all, and they include the use of fertile land, good seeds and resistance at the right time, the plant needs of the plant, harvesting, storage, export, etc. |
| 16 | Make a comprehensive study of the target areas to know the crops that are grown in different seasons before starting the project. It is desirable that the targeting be before the entry of the planting season, so the test will be more active.<br>Expanding the project's activity to include more districts and governorates.<br><br>Allocating funds to the assembled committees, where they play an active role in the success of the project<br>Raising the value of the financial dues allocated to engineers and the amount of health insurance. |

| # of respondent | Recommendations on improving the horticulture production |
|---|---|
| 17 | Conducting a prior study that did not start before the targeting process.<br><br>Enable the work of qualified technical staff to implement and deliver all necessary information to farmers during the implementation period. 3- Prior coordination with subject to humanitarian affairs before the period, etc. |
| 18 | Focusing on targeted farmers in the governorates that own large areas of agricultural land.<br><br>Assessing the volume of interventions in the governorates.<br><br>Targeting coastal governorates by introducing greenhouse technology, which suits the temperatures in those governorates. Targeting areas that have been previously targeted in small numbers.<br><br>Organizing refresher courses for agricultural engineers. |
| 19 | Preparations for the implementation of projects are early before the entry of the growing seasons. |
| 20 | Searching for new areas of intervention in addition to irrigation networks (preferably replacing them) based on the real need<br>The farmer has the result of accurate field surveys |
| 21 | Conducting a prior study that did not start before the targeting process. 2- Enable the work of qualified technical staff to implement and deliver all necessary information to farmers during the implementation period. 3- Prior coordination with subject to humanitarian affairs before the period, etc. |
| 22 | The recommendations are that each region is dealt with according to its nature and its need of modern technologies. For example, Tihama must be dealt with according to its nature, seasons and areas, unlike, for example, Ibb, Saada, or Amran. For example, the package of technologies granted to farmers can vary from one region to another according to their needs and the subject in this aspect too long to talk about. |
| 23 | During the selection of consultants, the main specialties with the most experience in the field of project implementation are selected(horticulture - prevention - land and water -Agricultural Engineering) Providing a budget during the training of farmers that covers the training necessities Providing the full needs of agriculture during the preparation of tables of quantities commensurate with the intervention area and according to the crop and season of the irrigation network and its accessories - fertilizers - seeds or seedlings |
| 24 | The most important recommendations are to carry out an accurate and detailed community study work, accurately assess the situation of the farms, and support the largest number of farmers in the targeted area - The presence of a supervisory field team from the first agricultural operation until the harvest stage is an important success factor - The Fund's experience in all its stages and details is a pioneering work that we see and apply. |
| 25 | Yes, it is necessary to focus on consultants in terms of experience, high efficiency, love of work and conviction in themselves of the importance of spreading modern technologies and knowing all the positives of modern technologies. |
| 26 | Make comprehensive studies of the targeted areas to know the crops grown in different seasons before starting the project. It is preferable that targeting before entering the planting season should be to select more beneficiaries. Expand the scope of the project to include more governorates and districts. Allocating some allowance to members of the community committees. Raising the value of the financial dues allocated to engineers. |

| # of respondent | Recommendations on improving the horticulture production |
|---|---|
| 27 | Bias established by agencies using semi-inexperienced project implementers. Raising false reports with the results. The illusion in the degrees of unreal evaluation, which reaches 98%, according to the assessment of those agencies. The loss of some farmers due to any result and not facing reality. The farmers themselves frustrate themselves, as well as imitators. The work of these agencies is self-interest first and then farmers secondly, although the period of time. The presence of FAO in Yemen is approaching half a century, but it has only appeared in a reverse direction. It either uses unworthy local partners contractors or it uses its own outlets with backed experience. The important thing is that it disposes and receives reports on the same scale. And reality shows that. I hope that all the data I have dealt with in this regard will be taken seriously. Also, I cannot mention all the data and information in my possession, as the time is short to submit the questionnaire to you while I am busy. |
| 28 | Good preparation of the project in advance to avoid delays in terms of agricultural seasons. Early processing of work permits before the field team goes to the fields. Dealing strictly with the suppliers of agricultural supplies in not delaying the materials as well as downloading them as you farms and not reducing some materials, which causes the delay. Positive ideas can be linked to implement them in the field during the team's presence, especially for the long period of its presence through the systematic organization in the field training of farmers. It can be said that the training of engineers on the subject of field schools, that is, integrating the subject of field schools, yes I did not work in them, but there is a background through my question about it This is good for raising the farming community more.<br><br>Circles on forming agricultural associations for engineers, so that engineers can use their time to motivate some communities to form agricultural associations that benefit the region in the long run<br>Making a course or axle of workshops for engineers in the art of photography, lessons learned and success stories<br>Conducting courses on the correct methods of production, harvesting, storage, marketing, etc. |
| 29 | Specifying the type of crop to be planted so that its prices are appropriate at harvest so that the net profit is maximized, which will be a means of continuity and expansion.<br><br>Continuation of technical support for one or two seasons after the intervention. |
| 30 | Providing grants or financial support in a timely manner to implement the project before the planting season, so that the planting is in the appropriate season for the region to obtain the best result. Paying attention to the guiding, awareness and training aspect, and making it a major stage of project implementation. The project will not be completed without it. Allocating special support to agricultural engineers as training and on an ongoing basis in most aspects (agricultural, psychological, self-development) |

| # of respondent | Recommendations on improving the horticulture production |
|---|---|
| 31 | First, I recommend obligating the beneficiary farmers to plant 5-10 seedlings of fruit trees according to the areas of targeting and focus on the coffee and almond crops in the highlands. Second, focus on development and sustainable projects in the agricultural field and the transfer of experiences and successful international projects in this field. Third, increasing the number of agricultural engineers supervising farmers, so that their focus is on the success of all beneficiary farmers through accurate and continuous follow-up, as well as benefiting and cooperating with counterfeit farmers as much as possible. Creating new job opportunities in both short and long term. Fifth, focusing on educating engineers and farmers about the importance of preserving the environment for our future and the future of our children, through the safe collection and disposal of empty containers. Seventh, the targeting area for each farmer is greater than 2500 square meters especially in Tihama area because of their large lands they possess, and therefore this area in their view, is not encouraging, and most of the farmers who were targeted there are bothered by the small areas owners. Most of targeted farmers focus on the areas planted in the traditional way and neglecting the cultivated area with modern technologies. As well as the simple farmers and those who are ready to work and produce, and those in need of support and assistance, as well as the presence of two main cultivation seasons. |
| 32 | Support the presence of agricultural engineers in the areas of production of vegetable and fruit crops<br><br>There should be additional support for farmers who continue to use agricultural techniques, follow-up and conduct evaluation for them.<br><br>Conduct training courses for pesticide and fertilizer dealers<br><br>Training farmers to produce their own seedlings and conduct agricultural courses. |
| 33 | Providing support to farmers at the appropriate times, and in accordance with the agricultural season in the region, the necessity of the presence of the agricultural engineer during the period from preparing for the season until the end of the post-harvest treatment, taking into account the allocations of the agricultural engineer and in accordance with the conditions of time and space during his continuous follow-up to the farmers. |
| 34 | Focusing on targeting farmers in the governorates that own large areas of agricultural lands.<br><br>Assessing the volume of interventions in the governorates of Yemen.<br><br>Targeting coastal governorates by introducing greenhouse technology, which suits the temperatures in those governorates. Targeting areas that have been previously targeted with small numbers.<br><br>Organizing refreshing courses for agricultural engineers. |
| 35 | 1- Conducting a prior study of the intervention areas before the targeting process. 2- Enable the work of qualified technical staff able to implement and deliver all necessary information to farmers during the implementation period. 3 Prior coordination with local authorities and humanitarian affairs before the intervention period, etc. |

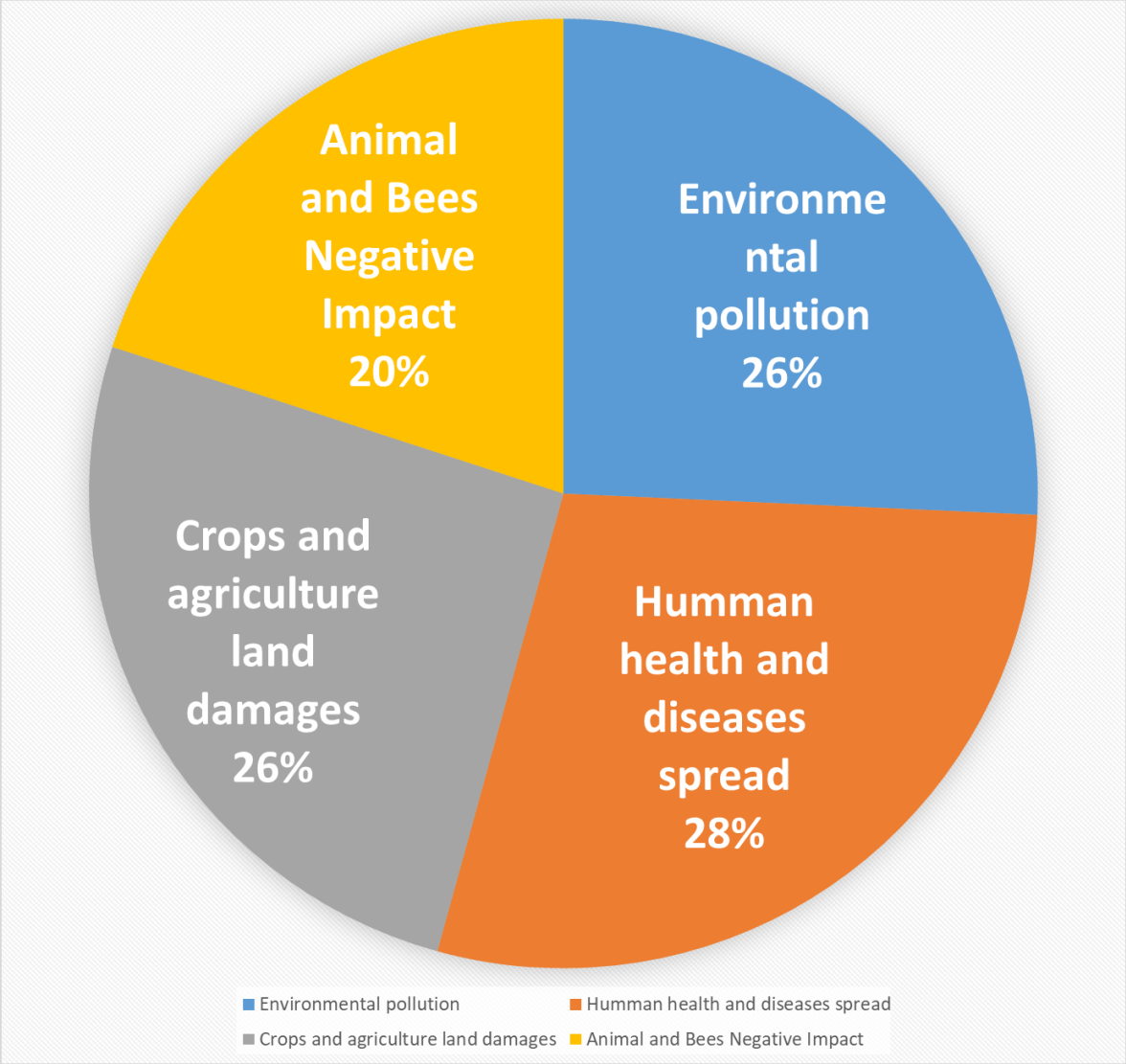
## ANNEX 3: Summary of Public Consultations with farmers from SFD, SMEPS and SAPREP

These consultations were conducted by FAO and involved farmer beneficiaries who benefited from previous interventions (a total of 16 farmers were consulted: 10 from SAPREP; five from SMEPS; and one from SFD). All of the farmers for those consultations were male, however further consultations with female groups are planned for when specific beneficiaries of the FSRRP are known. Two females had been consulted during the consultations with the General Directorate of Plant Protection). The overall objective of these initial consultations with farmers were to anticipate the expected impacts of the FSRRP project activities, gaps in knowledge/awareness pertaining to safeguards, current pesticide practices, use of fertilizers, and use of indigenous pest control practices and knowledge. The stakeholders' concerns have been documented and lessons-learned in reference to the FSRRP's planned interventions have identified to anticipate the potential mitigation measures most amenable to the project beneficiaries.

1. **As you know, the improper use of pesticides and fertilizers be hazardous for communities, livestock, and primary natural resources that are used by local communities. Please, kindly describe, with reference to specific examples (i.e., tangible evidence), risks & impacts of improper pesticide and fertilizer use.**

Main finding of Q1: The improper use of pesticides and fertilizers are hazardous for communities health and spread a lot of diseases (28 percent), lead to pollution and contamination of environment(26 percent), cause damage to crops and agricultural land(26 percent) and have negative effect to livestock and bees(20 percent),

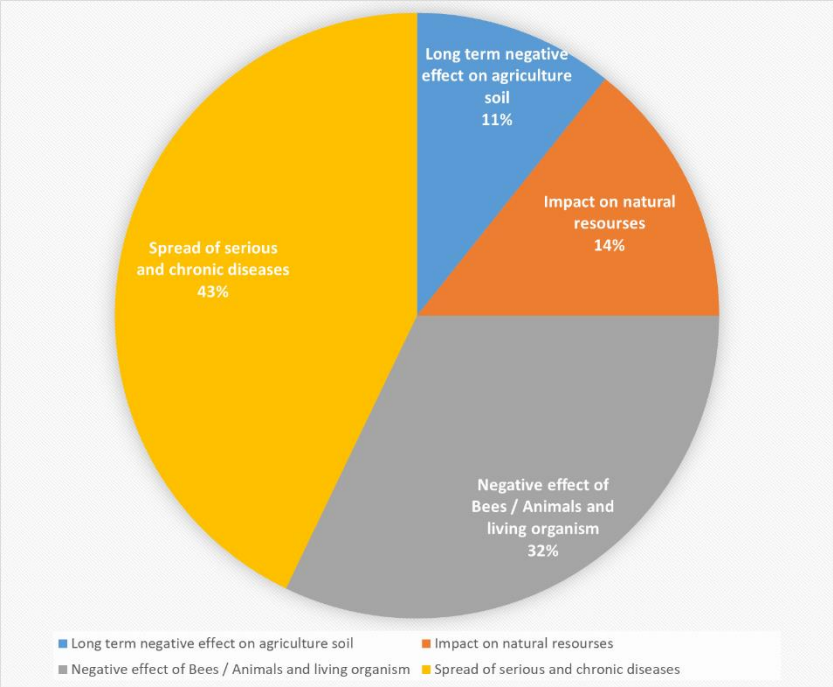
Figure 1: Risks & impacts of improper pesticide and fertilizer use as farmers views.




**2. In your perspective, does your community's use of pesticides impact neighboring communities? Yes/No? If yes, please describe two or three of the negative impacts/dangers (direct and indirect, short terms and longer term) of pesticides on neighboring communities.**

Based on the consultation findings, 94% of farmers stated that community's use of pesticides impact neighboring communities.

Farmers views ensured that, community's use of pesticides impact neighbouring communities by different means which can be categorized under four categories as follows: 43% said that it lead to the spread of serious and chronic diseases; 32 % stated that it cause negative effect of Bees / Animals and living organism such as deaths; 14 % said that it have an impact on natural and water resources; and11% expressed their concerns of long term negative effect on agriculture soil;




The following are responses received:

- It happens that some livestock die as a result of the random use of pesticides, especially because the farmer cannot distinguish between the types of pesticides, which are beneficial and which are harmful.
- Whatever was the safe methods, these pesticides still have effects on the environment. The accumulated pesticides for successive years on the field has a negative effect on the soil, the neighboring plants, and pollution; and thus, animal food is exposed to pollution...even human being got affected whether he was crops consumer or the farmer. Therefore, what is required is to reduce the dependence on chemical pesticides and work on the use of manual or mechanical means to control the pest, such as the use of modern techniques and other methods of mechanical control; also, working on the use of agricultural control, such as getting rid of the remains of the previous crop and other methods of agricultural control. As well as working on the use of bio-pesticides in the control such as neem and other bio-pesticides.

- 1. The long-term effect on agricultural soil. 2. A direct effect on beekeeping and the death of a large number of beehives, as observed recently. 3. The impact on water resources, especially surface water. 4. The spread of serious and chronic diseases.
- The society is affected by: Eating crops that have been sprayed with pesticides and chemical fertilizers. Also, entering the farm after the spraying process with pesticides. In addition to spraying pesticides during the wind may affect the neighboring community.
- Pesticides have effects on society due excessive use, and not consulting agricultural extension staff when using pesticides. They cause cancer as well as affect the soil.
- Non-observance of the safety period – the random mixing of pesticides - use of prohibited and smuggled pesticides - use of pesticide containers for special purposes.
- Everyone might get affected by pesticides because they are not aware of its danger, quality, or safety period, because if the crop is harvested before the safety period, the

risk that people will suffer direct diseases like poisoning the respiratory and digestive system, vomiting, diarrhea, abdominal pain, chronic diseases, and cancer after a long time.

- It has a great impact; diseases, especially cancer, pets death, and bees death.
- It disrupts the ecological balance of living organisms, also leads to groundwater pollution that harms human, animal and plant health, and causes the continued killing of natural vital enemies.
- The transmission of pesticide spray and its smell to the houses near the farm, and this appeared through breathing problems.
- Using spraying pesticides affects the animal and the bee pastures, and the smell of the pesticide affects the population, especially the elderly and children.
- Especially on the beekeepers and the neighboring bees, and on the animals feeding on grass in the sprayed field.
- This is because of not getting rid of pesticide boxes and bags, as they are transferred by wind or swept away by torrents to the neighboring areas or through children, and this leads to the transmission of damage to neighboring areas.
- In many cases, when agricultural lands are small and so close to each other, pesticide spray volatilizes on a nearby crop that may be close to the marketing stage, causing poisoning the neighboring farmer and his family first because they are the first consumers, then other consumers; especially long-term pesticides.
- Some farmers spray pesticides; unfortunately, the neighboring farmer who is not using them got affected by transmission, also leaving the cans or bags of pesticides (powder) uncovered that affect the neighbors and the children.

**3. Kindly describe the current practice pesticide use (including handling, application, storage, and disposal).**

- Take pesticides from agricultural stores, and the pesticides must be authorized. Prepare the pesticide for spraying at the time of use in the early morning or before sunset. Storage in a place out of children reach. Burning and burying containers is harmful to human health in the short or long term.

- First, buying from merchants. Second, mixing and spraying using gloves or using generators. Empty containers are stored in unused wells and sometimes thrown next to farms.

- The current practices of using pesticides are summarized as follows: **First:** Procedures before handling pesticides: 1- Rejection of degraded and unlabeled and unlicensed products. 2- Do not pour the pesticide or keep it in a non-original container. 3- Read the recommended dosage and instructions on the label and choose the correct safety equipment according to the risks. 4- Adjust, if necessary, the spray nozzle. 5- Wear plastic shoes that are not perforated and impermeable to pesticides. 6- It is not permissible to work with bare hands. 7- Gloves must be strong and impermeable to pesticides. 8- Wearing clothes that do not allow the pesticide to reach the body. 9 - Wear safety glasses or face shield when preparing the mixture. 10 - The spraying machine can be accelerated by a small twig. 11 - Ensure that the correct doses are used and the licensed plants are used. **Second:** The followed procedures during the spraying process: 1- Fill the tank with clean water using a container to measure the exact volume of water. 2- Use gentle movements to avoid spilling the pesticide. 3- Stay away from pesticides and dust when mixing and handling. 4- Do not use household utensils. 5- Use suitable utensils to measure small quantities. 6- Use a stick to mix, wear gloves. 7- Do not mix the pesticide with bare hands. 8- Check that the pesticide has not leaked from the spraying machine. 9- When the spray nozzle is clogged, it should not be blown by the mouth. 10 - Not to use pesticides near a well-used for drinking. 11 - Not to use pesticides near the farmers when practicing their activities. 12- Keeping children, women and the elderly away during the spraying process. 13- Do not use pesticides near pets. 14- Spray the pesticide at a height of 50 cm from the plant. **Third:** Safety measures after spraying: 1- Washing areas exposed to pesticides with clean water. 2- Wash tools well after use and do not throw empty containers of pesticides. 3- Keeping tools and chemicals (pesticides and fertilizers) in a closed cabinet with good ventilation and an appropriate temperature, out of the reach of children. **Fourth:** Procedures to be taken in the event of pesticide poisoning: 1- Disposing of contaminated clothing. 2- Washing the whole body with water. 3- Not allowing the poisoned person to eat, drink or smoke. 4- Carry the injured to the nearest health center and carry the used pesticide box. **Fifth:** Disposing of empty containers: 1- Fill the empty container with water, tightly seal it, and shake it several times vertically and sideways. 2- Dispose of the water in the bottle into the spray tank. 3- We pierce the empty packaging with a sharp instrument. 4- Due to the lack of recycling containers in the area... after puncturing the empty container, we bury it in the ground in a place away from the agricultural land and away from the torrential stream.

- They are still random practices in most cases, handling, and their application is random except in very rare cases. We still see the lack of observance of storage instructions from some pesticide sellers. And getting rid of empty containers, we, as farmers, are still getting rid of them randomly
- For the practices that we use to use pesticides, mostly traditional, we bring the pesticide by the merchant and spray it according to what the seller described to us. After the

spraying process, the pesticide cans are disposed of by throwing them on the farm far from the house. As for storage, it is stored in a suitable place so that it cannot be exposed to the sun.

- There are many wrong practices carried out by farmers and sellers of pesticides, whether during use or unsuitable storage with ignorance to their risks...
- 1- To be out of children reach 2- To be away from foods. Storage methods 1- Keep pesticides in a dry place 2- Dispose of empty bags and containers.
- There are wrong uses and practices in our society, such as the presence of many types of pesticides in the market, and no one knows their danger except for few, and improper storage methods, such as warehouses that are overcrowded with expired pesticides and which do not have ventilation. Most importantly, disposal of bags and cans of pesticides in torrents, roads, or in public places, and the presence of smells that spread out for tens of meters.
- Spraying without taking precautions and prevention, such as masks and gloves, and the containers are not disposed of in a proper way, but rather are left... in the garbage.
- Application of the recommendations recommended by the agricultural extension staff.
- By asking the farmers near the field, have you tried and applied the pesticide and sprayed it on the crop? The storage should be out of children's reach and disposal of through burial.
- Our use of pesticides is very normal. We buy pesticides from the seller every day. When finished, we throw the box on the farm.
- The practices, from my point of view, are all wrong, starting with storing cans at home, the method of spraying without protective equipment, and the improper disposing of empty containers after using them.
- Pesticides are purchased from stores, and the farmer opens them, whether they are powder or liquid, and they are divided into healthy boxes and placed in untouched places in the house, but they remain exposed to children and others. Also, powder pesticides are placed in plastic bags and in rags, which leads to their deteriorating and loss of effectiveness. This is because of farmers' lack of awareness in rural areas, especially remote areas, we require for intensive awareness sessions on the use of pesticides and modern technologies.
- Most of the time we receive awareness from agricultural specialists in this field, but the pesticide dealer has told us that these pesticides are more effective and eradicate insects, and this is when trading - when applying we don't believe that a simple dose recommended by the specialist will be enough, so we double the dose. Also, when storing,

we put pesticides beside the plow and sometimes we just throw the cans on the ground without burying it.

- Pesticides are purchased from stores to know the expiry date and spraying instructions. If insects are behind the paper, it used from below; some pesticides are not useful. We use another systemic insecticide for the sucking insects such as whitefly and others. We put pesticides far from children, and we spray when no wind in the morning and evening. it is good to water the land before using spray.

**4. How do you usually select the appropriate type of pesticides?**

- By consulting an agricultural engineer.
- Diagnose the disease itself or photograph the injury or pest and present it to specialized agricultural engineers.
- Within the geographical scope of the multi-purpose agricultural cooperative Wadi Al-Rahab Association, pesticides are selected by a competent agricultural engineer who works with the association, and a supervisor of agriculture in the association's area.
- We became aware of some insect infestations and some plant diseases thanks to agricultural engineers who work in some shops selling pesticides and fertilizers, or through agricultural engineers who interfered with us in agricultural projects funded by some international or local agencies.
- There are several ways to choose the appropriate pesticide: Asking instructions from an agricultural engineer, search in google sits, and sometimes from some farmers who have experience in the use of pesticides (meaning the experience of the farmer).
- Choose the appropriate variety by consulting experienced people of old farmers or the agricultural staff in the area.
- 1- Reading the label of the pesticide package before use. 2- Consulting specialists before purchasing the pesticide. 3- Taking into account the safety period.
- Be sure to use safe pesticides for the society, the environment, or the plants, such as using some trees, soaking their leaves or seeds, and using them as a safe pesticide.
- By asking instruction from farmers, pesticide dealers, or specialists in agricultural offices.
- According to the type of pest seen in the field.
- Through other farmersʹ experience, we describe the disease to the seller, or we tell him about tomato. He gives us a box and we use it. If it doesnʹt work, we go back to him and give us another one.

- Choosing the appropriate type based on the type of infestation on the crop.
- It is through consulting the engineer to describe the appropriate pesticide in terms of industry, quality and country of origin, but unfortunately some farmers, or many of them, go to the dealer and buy any pesticide.
- We have several ways, either through the experience gained seasonally, through the neighboring farmers, or through agricultural specialists, and sometimes through pesticide dealers as he is the most one we get in touch.
- What we learned from the engineers, according to the type of pest, we use pesticides, either insecticides, systemic pesticides, or fungicides that eliminate pests.

**5. Which pesticides do you normally use, and for which crops/pests?**

- Insecticides: aphids, whitefly, spiders, thrips, mealybugs, and butterfly; and fungi: blights, rots and fungi. Insects: imidcloprid, chlorophenapir, acetamiprid with abamectin, olmpdaylhatherin, perdapine, othioxalam; fungi: propnib, ozoxystrobin, with difenconazole, copper chloride, or carbsiloxime
- Insecticide: Avent for tomatoes and berries, Absolu or deltametri for manna and the fruits of tomatoes and cardamom...
- Within the geographical scope of the multi-purpose agricultural association Wadi Al-Rahab, a file of the control program is attached to you...
- Pesticides 1- Insecticides and arachnids 2- Fungicides 3- Pheromone traps used for tomato and strawberry crops * Pests 1- Thrips 2- Spiders 3- Tuta Absoluta (Butterfly) 4- Whitefly 5- Diseases Early and late blight wilt.
- We use insecticides and fungicides for watermelon, tomatoes, carrots, zucchini, peppers, hot peppers and others.
- Stephene, potassium sulfate, ammonium sulfate. Power Cal Calvin Super Soluble Agricultural Fertilizer.
- We use insecticides and fungicides. They are used for tomatoes, cucumbers, zucchini and potatoes.
- There are many dangerous pests that may kill the plant, especially in times of the presence of fruits where the use of a safe pesticide is not feasible or beneficial, so I forced to use a suitable and fatal pesticide; for example, tomato worms.
- Insecticides and other pests.
- According to the type of pest seen in the field.

- There are many and different types.
- Avent and desice it for vegetable crops.
- Abamectin king benzoate.
- Amectin, Benzoate and others.
- We use insecticides for tomato crops to control the tomato worm, and insecticides for whiteflies and insects that feed on flowers, which leads to no fruits being formed.
- We use several types of pesticides, including counted white and elderly flies, including fruit worms, including leaf spots.
- We use most pesticides and fungicides, insecticides in the summer season, and fungicides in the winter season, for crops such as tomatoes, okra and zucchini. We spray in the absence of flowering, i.e. before flowering and the beginning of the day.

**6. Have you ever mixed more than one type of pesticide? Which ones?**

- No
- Yes, such as spider and fungal insecticides.
- Yes, but according to the instructions and not a random mixing. We use an anti-virus program prepared by (SMEPS) consultants.
- No
- Yes, most of the pesticides we use for spraying are mixed with more than one pesticide.
- Yes, I used to mix potassium sulfate with calcine with super agricultural fertilizer until the agriculture guide alerted us not to mix.
- No
- Yes, in the long term, all farmers mix pesticides, both according to the presence of pest or disease, or mixing insecticides with fungal ones, and believing that each type treats problems in the field.
- I have never done this.
- According to the type of injury in the crop
- No
- Yes, it is mixed with insecticides and fungicides.
- Yes, more than one pesticide was mixed.

- I did not mix more than one pesticide, but it happened once that the farmer called Yahya Labbad mixed two pesticides, which led to destroying his tomato crop.
- Yes, for example, Ambla chloride with Delta Frenne.
- I do not mix, but unfortunately, the sellers of pesticides are the ones who mix and sell it to us in containers that are not designated for pesticides, and they have the date of use, and we mix only once.
- 56% of the farmers used to mix more than one pesticides such as spider/ insecticides and fungal insecticides, potassium sulfate with calcine with super agricultural fertilizer ;

**7. Which fertilizers do you usually use and when? Please describe, also, the application frequency and amount you use, depending on the crop**.

- The vegetative growth of tomatoes for 3000 seedlings \ the second and third week \ high phosphorus 10-52-a10. The quantity is 3 kilos divided into two doses, aluminum sulfate quantity 2 kilos divided into two doses and your humic lion 150 grams divided into two doses. The fourth week is balanced twenties 3 kilo divided into two doses and ammonium sulfate 2 kilos divided into two doses and calcium + Magnesium 500 grams divided into two doses and microelements 200 grams spray divided into two doses. In the fifth week balanced twenties 2 kg divided into two doses Ammonium sulfate 2 kg divided into two doses of amino acids 2 ml/liter Spray divided into two doses. Your body Lion 200 grams divided into two doses Divide two doses of calcium boron 2 ml / liter spray flowers and fruit formation. In the seventh week, high phosphorous 3 kg divided into two doses and microelements 200 grams divided into two doses of amino acids 2 ml / liter balanced spray in the twenties 3 kg in two doses The eighth week high potassium 3 kg in two doses aluminum sulfate 2 kg divided into two doses phosphoric acid 5 ml / liter in two doses watering calcium boron 2 ml / liter in two doses Balanced spray. Twenties 3 kg in two doses Fruit production from the ninth to thirteenth week high potassium 3 kg in two doses Ammonium sulfate 2 kg on two jars Calcium + magnesium 500 grams in two doses Minor element 200 grams in two balanced doses twenties 3 kg in two doses.
- A balanced fertilizer or a high-phosphorous fertilizer or a high-potassium fertilizer and ammonium sulfate. Each agricultural stage needs a specific type of fertilizer.
- Within the geographical scope of Wadi Al-Rahab Multipurpose Agricultural Cooperative Association, we are using a fertilization program prepared by two consultants (SMEPS). Attached is a file with the fertilization program.
- Use NPK fertilizers of all kinds, as well as microelements, calcium and amino acids. They are used at the beginning of planting, at the beginning of flowering and at fruit set. The amount depends

on the number of seedlings or on the area in square meters and on the recommendations of the agricultural engineer and the recommendations written in the product and for each crop the quantity and amount.

- We use balanced compound fertilizers, high in phosphorous, potassium and sulfate, as well as foliar fertilizers and calcium and boron fertilizers. It is used twice or more per plant according to age.
- Ammonium sulfate, potassium sulfate, calvin, and borcal. The amount, of course, is traditional, according to the area.
- • 20 * 20 * 20 growth used once per season micro and macro elements + calcium + potassium + zinc used once per season after 60 days of planting.
- There are many used fertilizers, especially in the current times and the presence of many types and companies, but only a few of them were used according to the fatigue or deterioration of the crop. I can use NPK fertilizers, or urea fertilizers. It may reach tens of kilograms to tens of times in one season. But it is possible to replace these fertilizers with organic fertilizers made by the farmer's industry himself, which will be more beneficial and less expensive.
- Urea fertilizer, which is called concentrate, and iron, which is called chemical, two to three times sometimes.
- Yeah
- Urea and some fertilizers that are sprayed twice a season and when needed.
- Urea and compound 20 20 20 without measurement.
- Use urea fertilizer, NP K 20 20 20 and micro-elements spray.
- Fertilizers used by the traditional wither in the winter once a year, with an estimated use of 20 tons per recycler. We used animal manure in an incorrect way before we were trained through the ring schools in the way of compost fermentation, and the traditionally needs to transfer these practices and train other farmers.
- White carpets were used when the vegetable crop was about a month and a half in old. Then we use a balanced compound fertilizer before flowering. With the use of decomposed traditional fertilizer after plowing and before planting and dividing.
- Fertilizers that we usually use traditional fertilizer (animal wase) and used once a year 5-10 tons of recycled. Unfortunately, we used animal waste in a poor way. We were trained to make a pit and put the waste in it, and the result was better than the first.

**8. What are some of the best traditional and agronomical practices your community uses for pest control? Please list the practices.**

- Good soil stirring and the use of crop rotations.
- Burning tires or waste. When some pests such as locusts attack the crop, there are some traditional pest control practices, including the use of bio-pesticides, which are 100% safe on the environment, such as using red pepper and garlic to control Tuta Absoluta, also known as the butterfly. Make big distances between seedlings, so that ventilation is good for the plant so that there is no suitable environment for mushrooms; as well as, sterilization of the soil by the sun. Also, the use of organic fertilizer during sunny sterilization, as it produces heat that is sufficient to eliminate many pathogens.
- 1. Igniting smoke by burning wood or fodder to expel locusts. 2. Using ash to save grains from the grain weevil 3. Using some trees and plants to expel insects such as the neem tree which is one of the traditional practices we use to control pests, planting corn around the farm as it brings pests around. There are many traditional practices, including burning animal waste (Ad Dimman) and using them to get rid of pests.
- One of the traditional practices that we use to control pests is planting sorghum around the farm, as it brings pests around.
- There are many traditional practices, including burning animal waste (Ad Dimman) and using them to get rid of pests.
- Use clean seeds, deep plowing of the soil, avoid transmission of infection, irrigation from five to seven days.
- There are some simple practices, the most important are: Getting rid of the remnants of the previous crop, which may transmit some pests and diseases to the current season, planting trees with strong repelling odors to expel ants, getting rid of infected fruits or leaves and burying them, placing or spraying sesame seeds on ant dwellings, soaking oranges peels and spray on crops, maintain vital enemies that attack pests and insects.
- Sometimes we use ash, and some use het pepper.
- Currently we use traditional fertilizer (animal waste) only before planting and when irrigation if necessary
- Deep plowing, and igniting smoke in the evening.
- Sponge with Alliant, and igniting smoke in the evening.
- Manual control and pheromone trap control; manual control by weeding i.e cleaning the land from weeds.
- We use the best agricultural methods by plowing the land well, selecting excellent seeds, and properly watering the land.

- The best traditional and agricultural practices are the agricultural cycle. No planting two successive seasons in the same place, always should have a grain crop in the middle, or the land is left after plowing for a period that is exposed to sunlight to eliminate insect, fungal or other left from the previous season.
- The method of plowing, turning the soil and get it exposed to the sun, regular irrigation according to the irrigation cycle.

**9. What do you think about the new techniques being taught about pesticide and fertilizer management? Please list the pros and cons, in your opinion.**

- Very good. Advantages: Knowing how to use pesticides and ways to deal with them, as well as knowing the types of pesticides and their negative effect.
- Organizing training courses by some agricultural specialists, with the support of local community organizations...they have a positive impact because we benefit greatly from them by knowing harmful fertilizers; for example, adding urea causes increase of salinity in the soil, which causes spoiling the fertility of the soil...
- First: - Of course, there are advantages, which we have seen after SMEPS' intervention in the region. And after we received a training course from SMEPS in the management of integrated pest management, we found a big difference in the agricultural season after the course compared to the season preceding the session in terms of the production, quality and plant safety are better than the previous season. One of its advantages is that it reduces the use of pesticides and chemical fertilizers. Thus, the less the amount of pesticides and chemical fertilizers used, the lower the risks to the environment. Second: We do not say its disadvantages, but rather the obstacles we face is the difficulty of reaching awareness and training for the whole community. As well as the difficulty of adequate availability of bio pesticides.

Also, not developing bio pesticides and not encouraging specialized engineers in research and studies that develop the work of bio pesticides.

- Very excellent and we observed it in the intervention of agricultural engineers with the help of agencies, and its advantages. 1- Knowing pests and reducing the use of chemical pesticides in combating them and using natural alternatives such as pheromone traps. 2- Rationalization in the use of fertilizers and the use of modern techniques in irrigation to reduce the waste of water and fertilizers. The new techniques are good because when the farmer uses these techniques, his farm will not exposed to insect and fungal diseases, so he will have a good and appropriate crop.
- New technologies are an excellent and effective step in the field of agriculture; their pros are: they save effort, time and money in labor; the disadvantages: they waste a lot of job opportunities for the poor workers, and affect the quality of production.

- **Advantages:** Training on the use of safe and available pesticides from the local environment. The effect of pesticides on pest control is more effective and safer for humans, environment and plants. **Disadvantages:** Unavailability of local raw materials for some natural pesticides.
- A good and wonderful idea that can give society benefits. The disadvantages are to keep using harmful chemical preparations, and this threatens society. Awareness needs to be raised to avoid risks, and the advantages associated with encouraging everyone to replace pesticides and fertilizers with inexpensive or less dangerous and more effective alternatives.
- Frankly speaking, we only used it a little, because the neem tree is good as a prevention and repellent for insects.
- The use of natural pesticides is considered safe and ineffective as a plant. It is considered a natural pesticide, safe and not harmful to the environment.
- There are no available techniques other than compost.
- The pros., we were introduced to the damages resulting from the excessive use of fertilizers because of its impact on the land and economic loss. The disadvantages we were taught about one thing, and the reality is something else. They did not give us gas, nor fertilizer, nor money.
- Good, and pros protecting society from the effects of pesticides, the proper ways of using and storing pesticides.
- They are good and excellent techniques that save us money, effort and time, increase production and protect the plant from insect and pest infestations, and use gauze to protect the plant from insects and pests, as well as the mulch that prevents the formation of salts and weeds. In addition of making water drippers to provide water for the plants as needed, and the disadvantages are: their price is high and they are not available in the market.
- New technologies in the management of pesticides and fertilizers. Jabra where all available elements are used from agricultural and vital to specialized pesticides for each last with the use of pheromone traps on the Tuta Absoluta insect.
- They are excellent techniques, and through them, we have had many quantities of pesticides and fertilizers, time, money and effort. It may provide us with increasing production and its quality, reducing injuries, and using mesh, gauze and mulch reduces injuries and the amount of water, salts, herbs and labor. To increase production and quality in crops, unfortunately marketing is invaluable to farmers.

**10. What would you recommend to improving pest control, pesticide management, and fertilizer management?**

- Activating the role of agricultural engineers.

- The assigned authorities (the government) are to form a supervisory committee on smugglers and traders of pesticides and fertilizers.
- Advice is to seek the assistance of specialists in training and qualifying farmers on the proper use of pesticides and fertilizers, and support by the competent authorities and organizations related to providing rehabilitation, training and awareness to the community.
- Helping farmers by connecting them with experienced agronomists.
- Allocating training courses for farmers by specialized engineers.
- The use of pheromone traps and the use of neem extract and the use of large reserves to prevent insects from entering the field and the use of appropriate fertilizers at the appropriate time for the crop.
- Monitoring and inspection of adulterated, counterfeit, or unauthorized items - Using an appropriate pesticide in case of extreme necessity, dispensing with dangerous pesticides and replacing them with safe and authorized ones.
- Lacking censorship, and the awareness is rare.
- Using natural pesticides sterilizing the soil with the sun by plowing and leaving it for a period before planting and after the previous crop using some of the leaves of plants as pesticides.
- Protected houses and providing support to protected houses and the use of traditional fertilizers. I advise myself and farmers to use fertilizers and pesticides according to the need, but this can't be done but by periodic awareness of farmers, especially during the season.
- I advise to provide protection and protective equipment during spraying, not to overuse pesticides, follow agricultural cycles, and control with pheromone traps. For fertilization, I advise using them according to the need of the plant and the age of the plant, and to give it the appropriate fertilizer at each stage of growth.
- We advise, as you train us through the engineer Lutfallah Saleh Al-Nasri through the farmer field schools, which is the method of integrated management, and we need as training as of FFSs, using of integrated control from good titers and free of infestation to the use of agricultural methods from an agricultural cycle and the removal of remnants of the previous crop to the selection of custom pesticides.
- We recommend conducting intensive training courses, theoretically and practically, and identifying the types of agricultural pests and the appropriate pesticides for each pest, and how to spray at the right time, especially in the profit season, etc.

**11. Have you ever been trained on the safe and secure usage, storage, application of pesticides and disposal of pesticide containers, etc.?**

- Yeah
- No
- Yes, I received a training course from the Small and Microfinance Enterprises Promotion Services (SMEPS) entitled Training Course for Farmers in (Modern Agricultural Techniques – Protected houses - Integrated Control - Security and Safety) Project Contribution to the Emergency Crisis Response (Agricultural Component) Raima governorate.
- Yes, through some agricultural publications, or through advice from engineers through social networking sites.
- No
- No, I did not receive any training opportunity.
- Yeah
- No, but I am aware of some of them, and there is a great and dangerous shortcoming in our society in this regard.
- No
- No
- Yes, in the farmer field school only
- Yes, in the farmer field school.
- No
- Yes, we were trained by Eng. Lutfallah Saleh Al-Nasri, how to use, store and apply pesticides, but the period of training was not enough.
- From time to time, we only receive advice in this regard, but no practical or theoretical training took place in this field.
- Yes, we were trained by a team of engineers working in the field of how to use, the appropriate time for spraying, how to store and preserve it from children, and not use containers and dispose of them by plowing or spraying.

**12. Do you have clear procedures and practices for the safe and secure disposal of expired or leftover pesticides? What standard experience of disposal of pesticides do you and/or community have? Please describe the process you use for disposal of pesticides in details.**

- Keep the packages in a closed place so that we can burn them and bury them in a place designated for this purpose.
- Throwing it into an unused well (designated for waste).

- In fact, we do not have expired pesticides because we do not deal with expired pesticides, but if we encounter this problem, and according to the available capabilities, we can get rid of the pesticides with a short stay in the form of concentrates by burying them in a hole a meter deep 6 to 8 meters distance between the hole and the other in an agricultural land, houses, or a water resource. The bottom of the hole is lined with lime barrier or organic material (animal waste), provided that the amount of active substance in one pit does not exceed 25 kg or 25 liters. After placing the pesticide, the hole is covered with a layer of soil a layer of limestone in beneath, in which the level of the surface is lower than the level of the surrounding ground.
- I have never dealt with or purchased an expired pesticide.
- There are no, but expired pesticides are disposed of in places far from the community.
- No, I have no idea how to dispose the expired pesticides.
- Digging large holes far from the houses and reach of humans and animals.
- In fact, the society has a lack of awareness in this area, and the farmer can use an expired type under the name of old varieties that were previously effective. As for my experience in getting rid of expired or empty packages, either bury them or burn them in an isolated place away from the population or agricultural lands.
- Currently, yes, either by burning it or burying it by making large pits far from the residence and food of humans and animals, and we are working to educate colleagues about its dangers.
- For a safe and secure dispose, getting them exposed to direct sunlight until they are damaged, and then dispose them by burying in holes and burying them in remote places so as not to harm humans and animals.
- Through deep digging and burying with frequent hand washing.
- We do not have stored pesticides. All the pesticides we use on time, but if they are found, they must be buried in a deep hole to keep them away from society.
- Expired or empty containers pesticide, we throw them into the waterways, in the wells, or we disperse them in the ground, and we get rid of the packages by burying them in the ground.
- For us, we have been trained on the proper ways to use and dispose of pesticides and their residues, but farmers who have not been trained are still practicing the old methods. As mentioned previously, the training was not done properly. But we try to ensure that the pesticides are not expired, and if any, they are sprayed in confined areas and crops of new ages have not reached the marketing stage. We and the local community may have some simple good deeds in this field, because it is difficult to get rid of them in the course of the letter, due to the danger of that procedure.
- We did the work based on the training by engineers in the field in the field of horticulture, and we learned the proper methods of spraying. They advised with the necessity to purchase

protective equipment and clothing during spraying, and we, the experienced farmers, have benefited from these instructions. Unfortunately, there are farmers who continue to spray with safety methods.

**13. Have you ever received information on the safe use and application of pesticides and fertilizers? If yes, please describe that community-driven awareness raising efforts.**

- Yes, use protective clothing for all parts of the body, not to spray when the wind is blowing, not to spray with bees' present, not to spray in the presence of children or animals. The necessity of soap and water as a first aid in case anything happens.
- No
- Yes, we received a training course from SMEMS, as well as continuous awareness from the agency's consultants. Even after the intervention and the end of the project, communication with them continuously. For the local community, we have a multi-purpose agricultural cooperative, Wadi Al-Rahhab, which was established after the intervention of SMEPS, which is one of the SMEPS' fruits. The association carries out continuous awareness and supervises planting in the region by specialized agricultural engineers.
- Yes, Efforts are limited to advice from some of the engineers we dealt with, through social media, or through some agricultural publications.
- We did not receive that.
- I didn't get any training opportunity.
- Yes, we received information on the use of gloves, protective clothing and masks, the validity of the pesticide, when the pesticides are not harmful.
- Yes, I received some instructions from some of those who were involved in delivering awareness in this field, and he was in one of the field schools, which I may have benefited a lot from. They worked hard to deliver the idea and I will work hard to deliver it to others in my community.
- No, there is no.
- Yes, we received some information and advice about the safe use of pesticides, but the community does not apply them correctly.
- Yes I received through the farmer field school.
- Yes I received through the farmer field school.
- Yes, the facilitator in the farmer field schools was explaining to us how to deal with pesticides during storage and during the spraying process and how to get rid of empty containers.
- Yes, as we were trained by the field school in this regard for twenty trainers, and we were trained on how to buy the appropriate pesticide, transport, store and spray it in a timely manner on the plant by wearing a protective suit, not harming bees, animals or humans, and the proper disposal of empty pesticides.
- In most cases, we receive information, whether through the specialists supervising the farms, about the necessity of the proper use of pesticides and fertilizers, and the knowledge is disseminated by the selected specialized farmers to train the local community.

- Yeah, where we were sensitized by engineers working in the field of environment and educated about how to buy the appropriate pesticides for the pest and about the types of pests and how to preserve them and spare them from children. During spraying, bees and animals are not planted in feed, and how to get rid of the vessels

**14. Do you have any concerns about environmental impacts, social impacts and community health & safety impacts relating to pesticide and fertilizer use? Please describe/list your concerns.**

- Yes, the random use of pesticides and fertilizers has great damage to health and the environment. Therefore, the role of agricultural engineers in various agricultural areas must be activated to guide farmers on how to use pesticides and fertilizers. The role that SMEPS agency plays in implementing its projects of awareness and guidance is right; we hope will expanding the awareness to reach all Yemeni farmers, there are some farmers who use internationally prohibited pesticides due to their ignorance of their effects on them and on society, in general.
- Yeah
- Yes, concerns are there, the use of pesticides and fertilizers has great damage to health, particularly cancer, regarding to pesticides. Regarding to fertilizers, the improper use will lead to soil affected and significantly reduce its fertility, in the future.
- Yeah, most important, 1. Lack of enough control on smuggled and prohibited pesticides.2. No farmers' commitment on the safety period. 3. The random mixing and some merchants store the pesticides in places overcrowded with people.
- There are many concerns, we observe this in our community through the spread of cancer.
- I have many concerns, environment effects and its effect on community health, the way of getting rid of the expired pesticides, and its effect on my family and my community; (1) Repeated use of pesticides leads to the destruction of the land and kills the beneficial bacteria and its fertility; and (2) The random use affects the animal environment.
- Yes, there are several fears, the most important is the excessive use of pesticides in all its forms and types, the most important is not adhering to the guidelines for use and safety when spraying pesticides, and the presence of signs in people I know. Pesticides have caused several risks, cancer is the most important risk, and many diseases. A person or society may be affected by chronic diseases that might not be recognized until late.
- Most of people know that they are dangerous, but the prevention of their dangers is neglected.
- The use of chemical pesticides and fertilizers in general causes great danger to humans, animals, plants and the environment, in general.
- The use of chemical pesticides and fertilizers causes great danger to humans, animals, plants and the environment in general.

- The spread of long-term diseases.
- Yes, I have concerns, especially the spread of cancer and kidney failure.
- Concerns about the effect of the pesticide may not appear directly, but its effect on humans may appear after many years as a result of the wrong use in dealing with pesticides.
- Yes, as many farmers have little awareness of the use of pesticides, the way they are stored and applied, and the disposal of pesticides, which they need to be aware of.
- The concerns on the ground water or when consuming the plant product without reaching the stage of the crop being free of pesticide effect. However, despite these excuses, we are fighting to protect our crops from damage and to increase the quality of the product.
- Yes, as we have concerns from the random use in the process of spraying during the wind, the use of the can for water and grains due to poisoning, as well as the process of storing pesticides and their invalidity as a result of humidity. Some children drank pesticides and underwent gastric lavage.

**15. Have you ever been negatively affected by pesticides or fertilizers, or do you know someone who has been negatively affected? If yes, how were you or the person you knew negatively affected? (Please describe when it happened/how it happened/what you observed and experienced).**

- No
- Yes, allergic rhinitis
- Yes, from the observations that I saw, a person was negatively affected during the spraying and before the intervention of SMEPS agency in the area, there was no awareness of the proper use of pesticides, as one day a farmer was spraying an insecticide and did not cover his face during the spraying. He was inhaling the pesticide spray. Which led to a drop in blood circulation, and he got dizzy, but after SMEPS' intervention and its consultants training farmers, the use became according to the procedures mentioned in the previous answers
- Yes, through direct exposure to pesticides, without wearing any protective clothing. My face and the skin of my hands were affected, and again my crops were affected due to the increase in the pesticide dose, which led to the burning of the crops.
- Yes, I got affected by pesticides, especially after the spraying process, which causes some problems, including headaches, nausea, dizziness and problems in the digestive system.
- No, I have never been affected by the use of pesticides.
- No

- Yes, I was affected nearly 7 years ago by a type of insecticide, where the pesticide touched part of the skin, which led to inflammation, redness, rash and itching that lasted for a whole day.
- I felt itching in the body when the pesticide touches the body, and I know people who have been sterilized and that the cause is pesticides
- No
- No
- No
- For fertilizer, no, I know a person whose daughter was affected by the pesticide as a result of putting pesticide in a bottle of water and putting it at home, and the girl drank from the pesticide, which led to her death immediately.
- Yes, there were simple cases and they were dealt with in preventive ways, and they were recovered from farms who inhaled a few pesticides.
- Often we get nausea, headache, or diarrhea. It happened that one of the people put the pesticide in the cans of soft drinks, and the old father drank the pesticide because as a soft drink and he died immediately, and there is a small child when he put the pesticide in the juice box, he took it and died immediately.
- Yes, when using chemical fertilizers improper way and mixing them, they affect the soil and plants. For the pesticides in the case of spraying, the eyes were affected by the pesticides, and in the treatment in the hospital, where we sprayed in the direction of wind, the pesticides were flied to the eyes.

**16. Do you wear gloves and/or masks and/or other equipment, commonly called "Personal Protective Equipment" (or PPE) when applying pesticides?**

- Yeah.
- Yes, gloves only
- Yeah.
- No
- Sometimes
- No. I do not use any equipment for safety and personal protection other than wearing my turban when using pesticides, and the reason is that I do not own this equipment.
- Yeah

- Some of them, but there are others in the community where I'm living don't use any of these safety measures.
- I don't always wear gloves, but I put a suit specifically for spraying.
- Yeah.
- Before, no, but through awareness sessions in field schools about the dangers of medicines, we used protection tools
- Yeah
- Yeah
- We do not use such equipment as they are not available and inability to purchase them, but during the spraying of pesticides we use the ghutra tied above the head to cover the face and this is considered a protection that achieves the same purpose.
- Sometimes we wear, and in many cases no gloves nor mask are used.
- We do not use such tools because they are not available, we are unable to buy them, and we do not know how to use them. We use a ghutra (turban) or a veil to cover the face sometimes."

## ANNEX 4A: List of Technical professionals consulted with Telephone interviews

| MAI + Plant Protection Directorate | | |
|---|---|---|
| **Name** | **Governorate** | **Position** |
| Ahmed Saif Alabsi | Sanaá | Head of Plant Control and Filed Campaigns Department |
| Ayah Yahya Ar Rafeeq | Sanaá | Plant Protection Specialist |
| Ali Mohammed Hajir | Al Mahweet | Head of Plant Protection Department |
| Fayqa Abdulwahab | Sanaá | Head of Department in Plant Protection |
| Mohammed Sagheer Shami | Al Hudaydah | Head of Extension in the Middle Area - MAI |
| Mohammed Ali Aydh | Amran | Head of Plant Protection Department |
| Nabeel Al Harori | Dhamar | Head of Plant Protection Department |
| Hasan Hajjaji | Hajjah | Head of Plant Production Department |
| Mohammed Ahmed Nassar | Hajjah | Specialist |

| SAPREP | | | |
|---|---|---|---|
| **Name** | **Governorate** | **Position** | |
| Wadeea Mohammed Taha Abdo | Taiz-Almudhafir-BerBasha-Behind AlKaramah Hospital | Agricultural Engineer | |
| Abdussalam Mohammed Sharaf Al Qadasi | Taiz | Agricultural Engineer (Vegtables and cereals crops trainer) | |
| Yaseen Mohammed Ismaeel Ahmed | Taiz- Khadeer | Horticulture Specialist at MAI office | |
| Nader Mahdi AlAwlaqi | Abyan- Ahwar district-Alboob area | FFSs facilitator - Vegtables | |
| Yaslam Nasser Abduallah Ahmed | Abyan- Rasd district | Facilitator | |

| SAPREP | | | |
|---|---|---|---|
| **Name** | **Governorate** | **Position** | |
| Hassan Abdulrazzaq Hussein Mesawa | Lahj- Tuban- Berj area | Agricultural Engineer- FFSs facilitator - Vegetables | |
| Abduallah Bin Abduallah Ahmed Hussein | Lahj-Tuban-Alwahd area | Agricultural Engineer- FFSs facilitator | |
| Abdulrahaman Ahmed Hussein Al Khairani | Hajjah- Khairan Al Mahraq district | MAI office Coordinator | |
| Lotfallah Saleh Yahya Omer An Nusairi | Hajjah- Hajjah city | Irrigation and Land Reclamation Department Manager | |
| Abdo Ahmed Shoee Hariq | Hajjah- Abs-Khairathat Bin Rushd | Agricultural Engineer -Field Supervisor | |

| SFD | | |
|---|---|---|
| **Name** | **Governorate** | **Position** |
| Mubarak Ahmed Abduallah Babusaili | Abyan- Lawder | Agriculture Engineer |
| Abdulhakeem Mohammed Mohsen Dhamaran | Dhamar | Agriculture Engineer |
| Ahmed Tairam | Lahj | Agriculture Engineer |
| Nasr Abdulfattah Mohammed Nashir / Elham Al Addas | Al Hudaydah | Agriculture Engineer |
| Dhamar Ali Maknoon Qetaee | Al Hudaydah | Agriculture Engineer |
| Hadwan Al Kawkabani | Al Hudaydah - Bait Al Faqeeh | Agriculture Engineer |
| Ahmed Salim | Hajjah | Agriculture Engineer |
| Sanad Aidaroos | Shabwa | Agriculture Engineer |
| Waleed Abdurahamn Hussein Al Haimi | Hajjah | Agriculture Engineer |
| Ali Saeed | Taiz | Agriculture Engineer |

| SFD | | |
|---|---|---|
| **Name** | **Governorate** | **Position** |
| Taha Al Kawkabani | Al Hudaydah - Bait Al Faqeeh | Agriculture Engineer |

| SMEPS | | |
|---|---|---|
| **Name** | **Governorate** | **Position** |
| Ashraf Ahmed Ali Al Malama | Ibb - Ibb city | Agriculture Engineer |
| Abduallah Shamlan | Sana'a - Aman Alasmah | Governorate Supervisor |
| Abduallah Badheeb | Sana'a - Aman Alasmah | Team leader |
| Mohammed AlHetar | Ibb | Plant Protection Specislist |
| Abdulwalee Qihaiter | Dhamar | Specialist |
| Marwan Manie | Abyan | Team leader |
| Rajeh Tabaqa | Hajjah | Governorate Supervisor |
| Mubarak Babsaili | Abyan- Lawder | Agriculture Engineer |
| Abduallah Naji | Amran | Agriculture Engineer |
| Mohmmed Ali Ahmed Al Hdaiji | Sana'a - Aman Alasmah | Specialist + Team Leader |

## ANNEX 4B: List of farmers consulted with Telephone

| SMEPS | | |
|---|---|---|
| **Name** | **Governorate** | **Position** |
| Nidhal Saeed Aseed | Al Hudeidah | Farmer |
| Mohammed Humaid Musleh Doghaish | Sana'a - Bani Hareth District -Al Adhrah | Farmer |
| Mohammed Saleh Ismaeel Al Moqri | Raima- As Silfyah dis.- Al Aslaf subdis.- Ashawp village | Teacher and a Farmer Head of Cooperative Association |
| Naif Moahhmmed Ahmed Ar Raimi | Sana'a- Sanhan Dis- Wadi Alajbar | Farmer |
| Ibraheem Mohammed Saleh Wahhas | Sana'a - Bani Hareth District -Al Adhrah | Farmer |
| **SFD** | | |
| **Name** | **Governorate** | **Position** |
| Waleed Awadh Saeed Al Maswari | Shabwa | Farmer |
| **SAPREP** | | |
| **Name** | **Governorate** | **Position** |
| Abdulkhaliq Abdo Saeed Qasim | Taiz- AlMafer- Alkhayami | Farmer |
| Yaser Abdo Mohammed Hasan | Taiz- Khadeer-Dhabwan Aála | Farmer |
| Talal Hashim | Taiz- Khadeer-Dhabwan | Farmer |
| Ali Atef Ali Mohammed | Abyan-Rasd district- below Sheb Alhenshi | Farmer |
| Alawi Naser Ali Alqarra | Ahwar - Alboob | Farmer |
| Wathef Mohammed Naser Mohammed | Bezj | Farmer |
| Zakaraya Jaradah | Bezj Alalawi | Farmer |

| | | |
|---|---|---|
| Khalid Ahmed Almatari | Hajjah-Khairan AlMahraq- Ad Daee | Farmer |
| Taha Ahmed Sharaf Ad Daee | Hajjah-Khairan AlMahraq | Farmer |
| Mohammed Shoee | Hajjah- Khoaidnah- Bani Nashir | Farmer |

# ANNEX 5: Terms of Reference (TOR) for the Yemen Food Security Response and Resilience Project (FSRRP) Inception Workshop

## 1. BACKGROUND

Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), and the United Nations World Food Programme (WFP) have recently launched a project to support Food Security Response and Resilience (FSRRP) in Yemen funded by the Work Bank. The aim of the project is to fight the spread of extreme hunger in Yemen and provide rural families with opportunities to build sustainable household food security. The project is envisioned to implement the following five components to achieve its overall aim. Each of the partner is entrusted to implement respective component (s) based on their comparative advantage whilst contribute to overall aim of the project

| | Project components | Responsible partner |
|---|---|---|
| 1 | Improving household incomes through CFW for agricultural production infrastructure and building climate resilience | UNDP |
| 2 | Increasing production and sale of nutritious crop, livestock and fish products | FAO |
| 3 | Improving the nutritional status of vulnerable rural households | WFP/FAO |
| 4 | Capacity building for food security management and climate resilience | FAO |
| 5 | Project Management and Knowledge Management | FAO |

## 2. RATIONALE/ APPROACHES

It is important to develop a common understanding of the project vision, objectives, components amongst the stakeholders and project team before implementation of the project starts across the country. The workshop envisions setting a foundation to strengthen partnership among the stakeholders and project staff. The inception workshop will be organized in a two-step approach. The first step focus more to project teams and partners[16] while the second step focus on the wider stakeholders that have direct and indirect role in the implementation of the project. The inception workshop for two categories of participants will be organized in Aden and Sana'a separately.

The potential participants, topical area for each of the envisage workshops and tentative dates are presented below. The detailed agenda for the events will be prepared subsequently based on the key topics.

## 3. PARTICIPANTS

| Potential participants of workshop | North ( Sana'a) | South (Aden) |
|---|---|---|
| A. PROJECT TEAMS AND PARTENRS | | |

[16] These are critical partners for implementation of some of the project component and identified during the preparation of the PAD

| | | |
|---|---|---|
| FAO, UNDP and WFP key staffs involved in the implementation and coordination of FSRRP | X | X |
| Social Fund for Development (SFD) | X | X |
| Small and Micro Enterprise Promotion Service (SMEPS) | X | X |
| Public Works Project (PWP) | X | X |
| **B. STAKEHOLDERS** | | |
| Supreme Council for Management and Coordination of Humanitarian Affairs and International Cooperation (SCMCHA) | X | |
| Supreme Agriculture and Fisheries Committee | X | |
| Ministry of Agriculture and Irrigation (MAI) | X | |
| Ministry of Agriculture and irrigation and Fisheries (MAIF) | | X |
| Ministry of planning and international Cooperation (MOPIC) | X | X |
| Ministry of water and Environment (Environmental Protection Authority) | X | X |
| Ministry of fish wealth (WFW) | X | |
| Ministry of public Health and population | X | X |
| Directorate of MAI from the targeted Governorates | X | X |
| Civil Aviation and Meteorology Authority (CAMA) | X | X |
| Food and Agriculture Organization of the United Nations (FAO) | X | X |
| United Nations Development Programme (UNDP) | X | X |
| World Food Programme (WFP) | X | X |
| International Center for Agriculture Research in the Dry Areas (ICARDA) | X | X |
| International Food Policy Research Institute (IFPRI) | | |
| World Bank (WB) | | |

## 4. KEY TOPICS

| **Key topics to be discussed** | |
|---|---|
| **A. PROJECT TEAMS AND PARTENRS** | **B. STAKEHOLDERS** |
| Introduction of the project ( objectives, components and key activities) | Introduction of the project ( objectives, components and key activities |
| Role and responsibilities of the three partners / Coordination and management structure | Role and responsibilities of the three partners |
| Target area of project and selection criteria | Target area of project and selection criteria ( TBC) |
| Project Result Framework / Monitoring and evaluation | |
| TPM, GRM and Beneficiary Feedback Mechanism | |
| Work plan of the Project / Detailed work plan of Y1 | |
| Environmental and Social Commitment Plan, (ESCP) and other safeguards tools. | |

## 5. TENTATIVE DATE OF THE WORKSHOP

| | South (Aden) | North ( Sana'a) |
|---|---|---|
| Project teams/ partners inception Workshop | Mid December | Mid January |
| Stakeholder's inception Workshop | Mid December | Mid January |