Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal (2018-2022)

Decentralized Evaluation Report

WFP Country Office, Nepal

August 2023

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Acknowledgments

NARMA Consultancy Pvt. Ltd., associating with international expert Kristiina Mikkola from Finland-based company Kristiina Mikkola Consulting Pvt Ltd, conducted this decentralized final evaluation of "Adapting to Climate-Induced Threats to Food Production and Food Security in the Karnali Region of Nepal". Ministry of Forests and Environment executed this project from the Adaptation Fund (AF) grant to the Government of Nepal and implemented by the World Food Programme of the United Nations (WFP).

We are grateful to WFP Country Office (CO) in Nepal, who provided us with the necessary funds and technical support to carry out this evaluation successfully. This report has benefitted from the timely guidance and support of WFP's Monitoring, Review, and Evaluation (MRE) Unit, particularly Ms. Kanta Khanal, Head of the Unit, and Mr. Ankit Babu Adhikari, Programme Policy Officer, MRE Unit.

We are thankful to the Ministry of Forests and Environment, Dr. Buddhi Sagar Paudel, Joint Secretary and Chief Climate Change Division (Member Secretary of National Project Steering Committee), Under Secretary Yam Nath Pokharel, Programme Manager at the Project Support Unit, Mr. Krishna Jogi, Deputy Head, Programme Unit/WFP CO Nepal, Ms. Pragati Sharma, Project Coordinator, and WFP field coordinators (Raj Budhathapa, Krishna Shahi and Aanchal Rai) for their support.

We acknowledge the support and cooperation of Mr. Mohan Dev Joshi, Secretary, Ministry of Industry, Tourism and Forests and Environment of Karnali Province during the evaluation. Likewise, support and cooperation from the local government officials from seven project municipalities, WFP's local cooperating partners and Nepal's development partners who provided time to interact with us and provided valuable insights into the climate change contexts and project implementation.

Finally, we are indebted to hundreds of CAFS-Karnali beneficiaries who have provided unbiased, clear views and messages to us in the field. The study was only possible with the tremendous effort of our research team, who did an excellent job interviewing all key stakeholders, including different officials, collecting the required information, and meeting our deadlines.

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Acronyms and Abbreviations

ADO	Agriculture Development Office
AF	Adaptation Fund
AFB	Adaptation Fund Board
ASDP	Agriculture Sector Development Project
BLS	Baseline Survey
CAFS-Karnali	Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal
CAF	Climate Adaption Fund
CBA	Cost Benefit Analysis
CBS	Central Bureau of Statistics
CF	Community Forestry
CO	Country Office
COP	Conference of the Parties in the United Nations Framework Convention on Climate Change
COVID	Corona Virus Disease
CSP	Country Strategic Plan
CSV	Climate Smart Village
DEQAS	Decentralised Evaluation Quality Assurance System
EA	Executing Agency
EBI	Environmental Benefit Indicators
EM	Evaluation Manager
FE	Final Evaluation
FtF	Face to Face
GDP	Gross Domestic Product
GEEW	Gender Equality and Empowerment of Women
GIA	Gender Impact Assessment
GoN	Government of Nepal
Ha	Hectare
HH	Household
HQ	Headquarter

HPI	Human Poverty Index
IFAD	International Fund for Agriculture Development
KII	Key Informants Interview
KPPC	Karnali Province Planning Commission
LAPA	Local Adaptation Plan of Action
LCP	Local Cooperating Partner
LG	Local Government
LPCU	Local Project Coordination Unit
MEO	Municipal Executive Office
MoALD	Ministry of Agriculture and Livestock Development
MoEWRI	Ministry of Energy, Water Resources and Irrigation
MoFAGA	Ministry of Federal Affairs and General Administration
MoFE	Ministry of Forests and Environment
MoWCSC	Ministry of Women, Children and Senior Citizens
MIE	Multilateral Implementing Entity
MoITFE	Ministry of Industry, Tourism, Forest, and Environment
MoSTE	Ministry of Science, Technology and Environment
M&E	Monitoring and Evaluation
MAIC	Municipal Agro-meteorological Information Centre
MRE	Monitoring Review Evaluation
MTR	Mid-term Review
NAPA	National Adaptation Programme of Action
NARC	Nepal Agriculture Research Council
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organisation
NPC	National Planning Commission
NPSC	National Project Steering Committee
OEV	Office of Evaluation
OECD	Organisation for Economic Co-operation and Development
PCCMIS	Province Climate Change Management Information System
PHOA	Post hoc Quality Assessment

PMAMP	Prime Minister Agriculture Modernization Project
PMEP	Prime Minister Employment Programme
PT	Project Team (CAFS-Karnali)
PPCU	Provincial Project Coordination Unit
PPR	Project Performance Report
PPS	Probability Proportional to Size
PSU	Project Support Unit
RBB	Regional Bureau Bangkok
RCDC	Rural Community Development Centre
RF	Result Framework
RM	Rural Municipality
SDG	Sustainable Development Goal
SOP	Standard Operating Procedures
ToC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UNCT	United Nations Country Team
UNDSS	United Nations Department of Safety & Security
UNEG	United Nations Ethical Guideline
UNFCC	United Nations Framework Convention on Climate Change
WFP	World Food Programme

Table of Contents

Lists of figures

Lists of Tables

Executive Summary

Introduction

1. This report is the final evaluation of the project, "Adapting to Climate Change Induced Threats to Food Production and Food Security in the Karnali Region of Nepal" (hereafter CAFS-Karnali or the project), implemented by the United Nations World Food Programme (WFP) as a multilateral implementing entity (MIE). The project implementation period was from 26 October 2018 to 26 October 2022 in selected 44 wards of seven local government (LGs) constituencies of the three mountainous districts of Kalikot, Jumla and Mugu in Karnali province. These districts are highly vulnerable to climate change and are frequently exposed to climate hazards and other shocks. The project was implemented with funds from the Adaptation Fund (AF).

2. While an agreement was signed between the Adaptation Fund Board (AFB) and WFP in April 2015, project implementation commenced after an agreement was signed between the MoFE and WFP on 21 May 2018.

3. Based on the project's theory of change (ToC) and results framework (RF) and complying with AF's Guidelines for Project Final Evaluation and based on WFP's Decentralized Evaluation Guidance for Process and Content, this final evaluation (FE) provides evidence-based results on project performance focusing on accountability and learning. Specifically, this evaluation:

a. Assesses the project's performance based on output and outcome indicators in the project's results framework.

b. Validates results and assesses the extent to which the project has led to intended and unintended results.

c. Provides insights measures on the relevance, effectiveness, efficiency, coherence, impact, and project sustainability as well as gender equality and empowerment of women.

d. Identify best practices and lessons learned that WFP, AF, Government of Nepal, province, and local governments can apply to future programming.

e. Critically and objectively reviews the progress of implementation to generate recommendations that will inform future project design.

Evaluation Contexts, Features and Methodology

4. The evaluation followed a non-experimental design with mixed-method approach, drawing on quantitative and qualitative methods. The achievements on the project objective and outcome indicators were compared against the target and baseline values, while output indicators were compared with the targets set at the beginning of project implementation. For quantitative data using primary data collection, households were selected using a two-stage cluster sampling technique. A structured interview was conducted with 720 households from randomly selected 20 wards. In addition, the study interviewed additional women respondents of the same households if the respondents were men to ensure 720 women respondents in the survey (720 women + other non-women respondents).

5. The qualitative method comprised of 27 Focus Group Discussions (FGDs) with project beneficiaries (women, men, disadvantaged and vulnerable groups) and 86 Key Informant Interviews with the LGs officials and relevant line ministries of the LGs such as Agriculture Development Section, Livestock Development Section, and district-based Agriculture Development Offices, Livestock Development Offices, and Division Forest Offices under the respective ministries of Karnali Province. Key officials/staffs of the MoFE and WFP were also interviewed. The evaluation adopted an "empirical analytical approach" focusing on triangulation and validation of information obtained from multiple sources.

6. The evaluation did not face any major limitations in terms of methodology data collection, and execution, except a few technical limitations, such as, lack of gender-disaggregated baseline data, difficulties in getting information, specifically differences in opinions and perceptions of the former and incumbent (newly elected leaders) due to transition in leadership at the LGs following the election in May 2022.

Evaluation Findings

Relevance

7. The project stands as one of the few showcase climate adaptation projects implemented in Nepal between 2018 and 2022. It has constructed several resilient, productive, and protective community assets, creating pathways to reduce climatic shocks and stresses, particularly related to water scarcity and water-induced disasters, in the remote and mountainous Karnali province of Nepal in the years to come.

8. The project objectives remained consistent and valid throughout its implementation in line with the Adaptation Fund Medium-Term Strategy 2018-2022 (amended in 2019), meeting the beneficiaries' needs, and conforming to Nepal's National Climate Development Policy 2019 and WFP Nepal's CSP (2019-2023).

9. The project design remained relevant throughout the project period although implementation was delayed by almost five years due to unavoidable reasons, which among others include, the earthquake of 25 April 2015 and the promulgation of the Constitution in September 2015.

Effectiveness

10. The overall rating of the project on effectiveness is satisfactory. This is based on full achievement of all targets as set in the project objective as well as mixed results in outcome and outputs. Out of nine objective level targets and five outcome level targets, the data collected and analysed show all objective level targets and four outcome level targets were fully achieved. Likewise, more than 80% of the output level targets reported by the project were fully achieved. According to the project sources, some output level targets, which include training to regional agriculture extension officials by Nepal Agriculture Research Council (NARC) and the establishment of demonstrations of forest carbon measurements and carbon financing development were repurposed in consultation with the EA as they found to be irrelevant following the change in context and similar activities were already being implemented by the government. Such changes were reported to AF through the regular annual project performance reports.

11. The project's contriubution to community assets building, creation of short-term employment and achievement of immediate food security at the household level, specifically during the COVID-period are noteworthy. Project's efforts to minimize the effects of COVID-19 pandemic and subsequent lockdowns through community-based mobilizations were also a key to delivering planned results. At the same time, however, the project was not immune to some of the inevitable impacts of the pandemic, and the evaluation report acknowledges these external factors directly or indirectly hindering project's overall success.

Efficiency

12. The project was completed in time , with budget utilization rate of 99.8% excluding expenses related to the final evaluation and audit. It had a very low management cost and more than 90% of the funds were spent at the local level. Having worked with limited human resources and partnered with district based not-for-profit non-government organizations, the project results were substantially achieved at low management costs. Financial efficiency of the project under two scenarios of climate adaptation, taking incremental benefits from the farm income and total income of the households reveals that benefit to cost ratio from adaptation action with farm income and total income was 1.08, and 1.48 respectively. Moreover, the internal rate of return of 12.0% and 20.8% for farm and total income, respectively, with a positive net present value indicating that the project is worth investing from a financial perspective.

13. The costs involved in achieving project results were reasonable, economically viable, and ensured access by the most vulnerable HHs (category III and IV) to the funds allocated towards community assets building. The evaluation rates the efficiency as satisfactory on the ground that expenditures were not overrun and spent timely as planned despite several unexpected external challenges. The evaluation attributes project's efficiency to a flexible on-budget off treasury fund flow mechanism.

Gender Equality and Women Empowerment (GEWE)

14. GEWE was adequately considered in the design phase and remained a priority throughout the project implementation. The project has created several innovative measures to achieve GEWE results., The evaluation rates GEWE as satisfactory in account of all the evidence available to support project's GEWE

commitment. Nevertheless, in terms of evaluation itself, the final evaluation team were not able to assess the GEWE results objectively in absence of baseline gender-disaggregated data/ results.

Impact

15. Realizing visible impacts (e.g., long-term resilience of communities) from a project focused on challenging themes such as adaptation to climate-induced threats to food production and food security in climatically vulnerable remote mountainous areas like Karnali region in a short period within a few months of the project completion, is ambitious. However, early indications revealed several short-term and positive impacts, such as a better understanding of the predicted adverse effects of climate change, the need for in-built mechanisms to overcome barriers to the adaptation and coordinated and collaborative efforts of multiple agencies keeping local government at the centre, and adoption of technologies like drought-resilient crop varieties, crop diversification, integrated crop management practices, soil fertility management.

16. While the project is action-oriented, it has also been innovative and has generated valuable lessons, particularly by creating employment opportunities during the challenging period of COVID-19. These employment opportunities addressed the needs of those who couldn't travel to India for work and others who returned home due to COVID-related lockdowns and crises in India.

17. Despite a supportive policy and institutional environment at the federal level and increased awareness among local people and target beneficiaries about the predicted impact of climate change and appropriate response mechanisms, the evaluation rates the impact of the project as moderately likely. This is because, despite evidence of Local Adaptation Plan of Action (LAPA) integration in LGs' annual planning, the newly elected LG officials who were elected and they assumed the office at the end of the project hence they could not be fully oriented and sensitized about the importance of LAPA mainstreaming.

Coherence

18. The project complemented federal and provincial government initiatives to increase agricultural productivity and improve food security and contributed to the local governments' development priorities of infrastructure construction. Similarly, the project has avoided geographical and resource duplications with on-going similar projects being implemented in the Karnali region.

Sustainability

19. Relatively high awareness among households regarding predicted climate change impacts and appropriate responses (85.1%) indicates a low socio-political risk to the project results. However, in accordance with the project's design, there was limited engagement with sectoral agencies and ministries. Furthermore, there is a need for the newly elected local leadership to be oriented regarding LAPA, supported by the project, as the governments have yet to be fully capacitated to implement LAPAs (both technically and financially). For these reasons, the evaluation rates sustainability as moderately likely.

20. The communities and local governments should put the continued efforts for further and optimal utilization of community infrastructure.

M & E Systems

21. Despite project's well-rounded interventions delivering significant results in the targeted communities, the evaluation findings showcase some gaps in terms of results-based approach in the design of the project's logframe. The project's M&E arrangements are clear, robust, and well defined. M&E related activities are carried out timely and reports are prepared with the inputs and guidance from the MoFE. The project result framework included in the approved Project Document was not revised during the project implementation. Some of the indicators in the project's result framework are double-barrelled with multiple targets for single indicator and few of the targets are not directly contributing to outputs and outcomes, which could be addressed by revising the logframe.

Conclusions, Good Practices, Lessons Learned, and Recommendations

Conclusions

22. The project activities are consistent with the needs and priorities of the climatically vulnerable households, local communities, and targeted local governments. The project successfully addressed

poverty, food insecurity, malnutrition, and climate-induced threats to food production and security issues in the mountainous Karnali region with limited human resources and within a short period of four years.

23. The project adopted several affirmative actions to ensure gender equality and women's empowerment through activities such as counting women head, equal labour pay for women and men for same kind of works to build resilience, direct payment through Bank, introducing renewable energy-based systems to support women-led enterprises. These activities have contributed to enhance economic and social empowerment of women and persons with disabilities.

24. Participatory transparent vulnerability assessment of the targeted beneficiaries by the communities themselves with commonly agreed criteria with facilitation of an external agency and the validation by the beneficiary is a good practice adopted by the project. This ensured access of impoverished, climatically vulnerable people to the opportunities, assets and services created by the project.

25. The project adopted a good practice of conducting a participatory and transparent vulnerability assessment of the targeted beneficiaries. This assessment was carried out by the beneficiaries themselves, following specific criteria and facilitated by an external agency. The validation of this assessment was also done by the beneficiaries themselves. This approach ensured that impoverished and climatically vulnerable individuals had access to the opportunities, assets, and services created by the project.

26. The on-budget off-Treasury funding mechanism adopted by CAFS-Karnali is a commendable practice. This mechanism enabled the delivery of more than 90% of the Adaptation Fund (AF) funds directly to benefit people at the local levels. This achievement was possible due to the flexible, accountable, and disciplined funding mechanism in place. Labour payment through bank account increased the financial literacy and inclusion of the impoverished, climatically vulnerable men and women, and communities' access to financial service providers.

27. A key mechanism developed by the project to ensure the continued utilization, repair, and maintenance of the infrastructure developed by the project is funding allocation through coordination with respective LGs, management training to communities focusing on minor/ routine repair and maintenance and the handover of the infrastructure to user committees in witness of respective LGs.

28. The deployment of highly competent and accountable district-based local service providers strengthened the project's collaboration and partnership with the local levels.

Lessons Learned

29. Major lessons which could be learned from this project are:

a. Livelihood-based vulnerability reduction supports improving food security and diversifying livelihoods, contributing to ecosystem resilience.

b. Integrating short-term adaptation measures and long-term transformative action builds climatic resilience and generates triple dividends: (a) short-term employment and food security, (b) ensuring the resilience of the ecosystem, and (c) generating long-term variable income towards attaining impact as envisaged by the project

c. The infrastructure plus approach, meaning a combination of significant capacity strengthening (CS)-related activities on top of infrastructure support, is necessary for building climatic resilience and improving food security. Screening the environment and social impacts of infrastructure is necessary but not sufficient.

d. WFP should focus on amplifying activities around resilience plans at the sub-watershed/ catchment level to sustain the achievements made during this phase.

e. The direct cash transfer mechanism adopted by the project is praiseworthy as this approach avoids fiduciary risk. Along with direct cash transfer, the project's activities, such as improving financial literacy among participants and availing local or immediate benefits (e.g., support to reduce travel time and financial institutions' capacity), should also be continued to ensure maximum benefits of the direct cash transfer mechanism.

f. The project focused on climate adaptation and building climate resilience capacities at the community/ local level need to assist the concerned agencies to prepare first LAPA, and

then assist local government representatives technically and financially to implement and mainstream the plan.

g. The development of a Provincial Climate Change Management Information System and Municipal Agro-meteorological Information Centre with the support of the program is encouraging. However, as these systems are yet to come into full regular operation and utilization, the program should incorporate this into the design of the next phase.

h. The project's focus on building climate resilience capacity should be more concerted and remain a key focus to sustain the achievements gained during this phase.

i. It is important to incorporate gender disaggregation of all data during the baseline to ensure comparability against final results.

30. Finally, the evaluation provided strategic recommendations for consideration by MoFE, the executing agency and WFP based on the above findings, conclusions, and learnings.

a. Carry out follow-up actions to sustain the good results and initiatives of the project.

b. Support the government to design climate change adaptation projects and mobilize additional climate financing including the second-national project for Adaptation Fund (to access the remaining country cap funding) that can scale-up the best practices of the project and maximize effectiveness achieved during CAFS-Karnali project, ensure sustainability of the activities, and enhance the impact.

c. Establish proper results-based management and create a mechanism that includes representation from all key project stakeholders in future projects. This mechanism should be responsible for defining, analysing, and periodically tracking the project's key result indicators and keeping project management updated.

1. Introduction

1. This report presents the findings, conclusions, and recommendations of the final evaluation (hereafter evaluation) of a four-year project, "Adapting to Climate-Induced Threats to Food Production and Food Security in the Karnali Region of Nepal" (hereafter CAFS-Karnali or project)," implemented in 44 wards of seven local government (LGs) constituencies of the three mountainous districts (Kalikot, Jumla, and Mugu) of Karnali province, between 26 October 2018 and 26 October 2022. The Ministry of Forests and Environment (MoFE) executed the project through an Adaptation Fund (AF) grant. United Nations World Food Programme (WFP) implemented the project as a multilateral implementing agency (MIE).

2. WFP is responsible to submit an independent final evaluation report to the AF within nine months after project completion, i.e., by July 2023[1]. The evaluation was carried out according to the Terms of Reference (ToR) provided by the WFP Nepal Country Office following Technical Notes, including those for Evaluation Approaches, Methods, and Data Collection Tools for Decentralized Evaluation, and complies with the WFP Decentralized Evaluation Quality Assurance System (DEQAS). Additionally, it responds to the Adaptation Fund (AF) Evaluation Policy and Guidelines on Project/Program Final Evaluation.

3. This evaluation is the third in a series of assessments, which include a baseline survey (BLS), a mid-term review (MTR), and the current final evaluation (FE).

4. Before data collection, the evaluation had an elaborate inception phase followed by an inception workshop on 9 December 2022 to solicit stakeholders' comments and suggestions. The inception workshop was attended by representatives of MoFE, WFP, and local implementing partners. The evaluation incorporated comments and suggestions of the participants and ensured the requirement of the DEQAS and AF.

1.1 EVALUATION FEATURES

5. The evaluation documents progress and lessons and serves the dual objectives of accountability and learning: The priority of the evaluation is on learning.

- **Accountability:** assesses the performance and results of the project and its accountability to key stakeholders, including beneficiaries. Alongside performance assessment, the evaluation provides recommendations to inform similar project designs in the future.
- **Learnings:** explores reasons for specific results and derives good practices and learnings to inform operational and strategic decision-making. The evaluation identifies factors and actors contributing to specific results.

6. The evaluation provides evidence-based insights about the project's performance and evaluates the project's results while documenting the best practices and lessons learned. **Annex I** summarise the terms of reference. Specifically, this evaluation,

- Assesses the project's performance based on output and outcome indicators of the result framework.
- Validates the extent to which intended results were achieved and maps unintended consequences.
- Determines to what extent the project succeeded in achieving the strategic objectives of AF and WFP, including the project's overall impact.
- Provides insights on the relevance, effectiveness, efficiency, coherence, gender equality and women empowerment (GEWE), impact, and sustainability of the project.
- Reviews the implementation progress critically and objectively to generate recommendations that will strengthen and inform future project design.
- Identifies best practices and lessons learned that can be applied for future programming.

[1] WFP. (2018), Standard Operating Procedure (SoP) for the Implementation of project, May 2018. World Food Programme.

7. In addition, the evaluation includes additional dimensions as required by the AF evaluation guidelines and provides a rating based on multi-dimensional analysis and justification[2]. This includes.

1) Assessment of processes influencing the achievement of project results,
2) Assessment of the contribution of the project to the AF targets, objectives, impact, and goal and
3) Evaluation of the monitoring and evaluation systems and implementation.

8. This evaluation provides insights into the differential effects of the adaptation activities on women, men, differently abled, and disadvantaged groups. Thus, the evaluation uses GEEW as an integral lens.

Expected Users of the Final Evaluation

9. The stakeholders engaged in the project are the expected/ possible users of the report. The internal users of this evaluation are WFP stakeholders, such as the Regional Bureau, WFP Headquarters, the Office of Evaluation, the Executive Board, and other country offices. Externally, this report will find the interest of the Government of Nepal (GoN), the United Nations Country Team (UNCT), and the AF. **Annex II** presents a list of expected users of the evaluation report.

1.2 CONTEXT

10. Nepal is a small mountainous country with a population of 29.1 million and a population density of 198 persons per square kilometre[3]. Located between two rising economies, India and China, the country is rich in geographical, biological, and cultural diversity. Nepal is a developing country aspiring to graduate out of LDC status by 2030, focusing on building an equitable society based on social justice[4].

11. **Governance structure:** With the adoption of a new Constitution in 2015, Nepal's governance structure was changed to a federal democratic republic system with a three-tier governance system: a federal government at the centre, seven provincial governments, and 753 local governments (LGs). The Local Government Operation Act of 2017 delegated authorities to the LGs and respective ward committees of the local level for planning, implementing, and monitoring developing activities at the ward level. The act gave legislative, executive, and judiciary power to the LGs, within their respective jurisdictions to prepare annual budgets and formulate and implement policies and plans on any matters related to financial powers within their respective jurisdictions**.**

12. **Human development:** Human Development Index ranks Nepal at 143 out of 189 countries with an HDI value of 0.602 in 2022, putting the country in the medium human development category.[5] Nearly one-sixth (15%) of the population had income below USD 1.9 per day in 2019, whereas 17.4% are multi-dimensionally poor, with the highest 40% in the Karnali province of Nepal.[6]

13. **Nepalese economy:** A national disposable per capita income of US$ 1,381[7]. The contributions of primary, secondary, and service sectors to the gross domestic product (GDP) were 24.5 %, 13.7%, and 61.8%, respectively. The GDP structure is gradually changing with the decrease in the contribution of the primary sector, i.e., agriculture, every year with an increment in the service sector[8]. Labour migration specifically that of male members, became an important component of the Nepalese economy with remittance constituting 22.5% of GDP in 2021, almost equal to the agricultural GDP[9]. This has led to the feminization of agriculture, making rural women increasingly responsible for farming. Of the seven provinces of the country, Karnali is the poorest province, which contributes only 4% to the national GDP[10]. Topography, market access, and climate factors hinder agriculture in the Karnali province.

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[2] AF. (nd). Evaluation Policy and Guidelines on Project/Program Final Evaluation. Adaptation Fund
[3] NSO (2023). National Population and Housing Office, (NSO), Office of Prime Minister and Council of Minister, GoN
[4] NPC. (2020). The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24). National Planning Commission (NPC), GoN
[5] UNDP. (2022). Human Development Report, 2021/22, Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. United Nations Development Programme.
[6] NPC. (2021) Nepal Multidimensional Poverty Index 2021: Analysis Towards Action. National Planning Commission (NPC), GoN
[7] MoF. (2022) Economic Survey (2021/022). Ministry of Finance (MoF), GoN, Nepal
[8] ibid
[9] CBS. (2022). Climate Related Indicators of Nepal. Central Bureau of Statistics (CBS), Nepal
[10] CBS (2022). Provincial Gross Value-Added Products, 2021/22. Central Bureau of Statistics (CBS), GoN, Nepal

14. Agriculture remains integral to Nepal's economy, employing over 60% of the population and contributing 24% to GDP[11]. Despite a high priority accorded to this sector, its performance has remained sub-optimal. Constant rises in the cost of production and labour shortages have tempted the people to keep land fallow. Agriculture productivity and competitiveness are far from satisfactory, and the adoption of improved technologies is limited.

15. According to international standards of less than two hectares of land set by the World Bank for smallholder farmers (SHF), of approximately 4 million farming households in Nepal, nearly 95% are SHF[12]. However, a 2010 report by the High-Level Commission on Scientific Land Reform 2010 reveals 56.9% Nepalese farmers own less than 0.5 Ha of land holding less than 20% of the total arable land, which makes it extremely difficult SHF to have a decent living from farming only. Recent National Population and Housing Census Report shows, in overall, 31.5% of the total households (6,666,937) are headed by female, which is an increase of 5.82 percent points since 2011, and that overall, 23.8% of the total households have ownership of land or a housing unit or both (land & housing unit) in the name of female household member (CBS 2022)[13]. However, no available data shows the percentage of women headed HHs among small-scale farmers.

16. **Sustainable development goals (SDGs):** In 2022, SDGs index score of Nepal was 66.2%, revealing that nearly two third of the indicators were achieved[14]. According to this report, of 17 SDG targets, three, i.e., responsible production and consumption (SDG 12), climate action (SDG 13), and clean water and sanitation (SDG 6) are on track towards reaching targets, whereas the remaining 13 targets which include SDG 1 (No Poverty) and SDG 2 (Zero Hunger) are moderately improving. However, progress on SDGs 16, i.e., peace, justice, and strong institutions, is stagnant[15].

17. Nepal made significant progress in poverty reduction between 2015 and 2019, reducing poverty by 1.1% annually[16]. But still, it faces significant vulnerabilities to continue a path of inclusive and sustainable growth[17]. Multidimensional poverty, structural constraints, mountainous geophysical features, and detrimental impacts of climate change continue to pose a severe challenge to Nepal's rapid, inclusive, and sustainable development[18]. Across gender, region, and local groups, large disparities can be observed[19].

18. Food security: In 2022, Nepal ranks 81st out of 121 countries on the Global Hunger Index with a score of 19.1, falling under moderate hunger[20]. Though the country has observed improvements in recent years, 22% of the population is still food insecure, with the highest proportion (23.1%) in the Karnali province[21]. Major challenges for improving food security include increasing investment on agriculture, improving rural infrastructures, expanding, irrigation facilities, and ensuring agricultural inputs on time, and implementing mitigation and adaptation plans to counter the effects of climate change.

19. **Climate change impacts**: According to the global climate risk index (2022), Nepal is among the 12th most climate-affected countries in the world[22]. Nepal's climate has warmed as the temperature increased to 0.056^{0}C annually between 1971 and 2014, whereas annual precipitation has declined by 1.3 mm[23]. The extreme temperature and precipitation variations will harm food production, water resource

[11] MoF. (2022) Economic Survey (2021-022). Ministry of Finance (MoF), GoN, Nepal.
[12] FAO (2015) The Economic Lives of Smallholder Farmers, Food and Agriculture Organization of the United Nations, Rome.
[13] NSO (2022), National Population and Housing Census 2021 (Volume 1) , National Statistical Office, Office of the Prime Minister and Council of Ministers, Nepal.
[14] Sachs, J., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2022). Sustainable development report 2022. Cambridge University Press.https://dashboards.sdgindex.org/profiles/Nepal
[15] ibid
[16] NPC. (2020). Nepal's Sustainable Development Goals Progress Assessment Report 2016–2019, NPC, July 2020.
[17] World Bank. (2022). *Nepal Development Update October 2022 (English).* Nepal Development Update. World Bank, USA
[18] NPC. (2020). Nepal's Sustainable Development Goals Progress Assessment Report 2016–2019, NPC, July 2020.
[19] GoN & UNDP. (2020). Nepal Human Development Report, 2020 Beyond Graduation: Productive Transformation and Prosperity. Government of Nepal (GoN) and United Nations Development Programme (UNDP)
[20] GHI (2022). Global Hunger Index: Food Systems Transformation and Local governance. Global Hunger Index
[21] WFP. (2023). WFP HungerMap, 2021. Accessed: April. 10, 2023. [Online]. Available: https://hungermap.wfp.org/
[22] Eckstein. D., Künzel. V., & Schäfer. L. Global Climate Risk Index (2021). German Watch, Germany
[23] MoFE. (2021). Vulnerability and Risk Assessment and Identifying Adaptation Options: Summary for Policy Makers. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal.

management, and other livelihood resources[24]. A report by the World Bank Likewise, storms, erosion, and landslides are on the rise, resulting in loss of life and livelihoods. The annual economic loss from climate change is NPR 2,778 million, or about 0.08 percent of the GDP in 2019 (at the current price). [25] The most devastating climate-induced disasters are floods, landslides, epidemics, and fires, which will further increase[26].

20. **Climate change impacts agriculture and food security**: The agriculture sector is highly vulnerable to climate change, primarily due to increased temperatures and precipitation patterns[27]. Over the last decade, around 31,000 ha of land owned by 5% of all households became uncultivable due to climate-related hazards, mainly drought, landslide, and flood[28]. Climate change induces losses in agricultural production by 10% to 30%, where the direct economic cost of current climate variability is 1.5% to 2% of the country's GDP[29]. Vulnerable communities, particularly those living in poverty, in remote areas, and working in subsistence agriculture, are at the highest risk, with exposure being spatially heterogeneous[30]. Women, Dalits, Janajatis, small-holder farmers, farmers relying on rain-fed agriculture, and other marginalized communities are the hardest hit by climate change[31].

21. Karnali Province is vulnerable to climate change and is frequently exposed to climate hazards, where flooding, landslides, soil erosion, and drought frequently disrupt local livelihoods, particularly agriculture[32]. An increase in temperature and erratic rainfall patterns results in water scarcity, affecting agricultural production and food insecurity, pushing migration to the lower area in search of feed and water[33].

22. **Gender equality:** The Constitution of Nepal 2015 envisions Nepal as an inclusive state and guarantees the right to equality, social justice, and freedom from discrimination to all and equal rights for women, the poor, persons with disabilities, gender and sexual minorities, people living in geographically remote areas and people from other excluded or vulnerable groups. National Gender Equality Policy (2020) aims to achieve gender equality through social and economic transformation, ensuring women's effective participation in all sectors.

23. The gender development index (GDI) score of the country is 0.942 and falls under medium equality groups in the HDI achievements between women and men.[34] Likewise, the gender inequality index score is 0.452, ranking 113 out of 189 countries, with high inequality between women and men[35]. Although Nepal has made several commendable progresses in gender equality and social inclusion, as has been evident from increased female representation in parliament, reduced maternal mortality, and improved secondary education of adult females[36], deeply rooted sociocultural norms impede better outcomes[37]. While Nepal's ADS (2015-35) indicates a large mismatch between vision, plan and action, and silence of government over how to enhance women's strategic positions by recognizing women as independent and autonomous farmers, ensuring women's access to means of production, enhancing their leadership competence and creating acceptance, and improving women's position in different structures of government, non-

[24] ibd
[25] idid
[26] ibid
[27] MoFE. (2021). Nepal's third national communication to the United Nations framework convention on climate change (UNFCCC). Ministry of Forests and Environment, Government of Nepal.
[28] WFP. (2013). Project Proposal Submitted to Adaptation Fund Board. World Food Programme.
[29] MoFE. (2021). Vulnerability and Risk Assessment and Identifying Adaptation Options in the Agriculture and Food Security. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal
[30] World Bank. (2022). Climate Development Report, 2022. The World Bank Group, Washington DC.
[31] MoFE. (2021). Vulnerability and Risk Assessment and Identifying Adaptation Options in the Agriculture and Food Security. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal
[32] Röhrig, F., Schiek, B., Ghosh, A., Ramirez-Villegas, J., Achicanoy, H., Esquivel, A., Saavedra, C., Grosjean, G. (2021). WFP Critical Corporate Initiative: Climate Response Analysis Nepal. The Alliance of Diversity and The International Centre for Tropical Agriculture; World Food Programme
[33] ibid
[34] UNDP. (2022). Human Development Report, 2021/22, Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. United Nations Development Programme.
[35] GoN & UNDP. (2020). Nepal Human Development Report, 2020 Beyond Graduation: Productive Transformation and Prosperity. Government of Nepal (GoN) and United Nations Development Programme (UNDP)
[36] ibid
[37] ibid

government, and private sectors[38], the latest government statistical report confirms gender disparities in employment where females were mostly employed in agriculture, forestry and fishing, wholesale and retail trade and education industries vis-à-vis males who were mostly employed in the construction, manufacturing, and transport industries (CBS 2017)[39].

24. **Impact of COVID-19:** Nepal is one of the countries badly affected by the global COVID-19 pandemic. Nepal experienced the first economic contraction in almost 40 years in 2020 by 2.4%, where 52% experienced a job or earning loss in the first COVID-19 wave in 2020, which is highest in South Asia.[40] As of 14 April 2023, the number of death tolls and infected by the COVID-19 pandemic had reached 12,022 and 1.2 million, respectively, in the country[41]. Furthermore, it resulted in the return of migrant workers and subsequently reduced remittance in-flow[42].

25. **WFP in Nepal:** WFP works closely with the GoN to inform policy decisions and to provide support on developmental issues relating to nutrition and food security, adaptation to climate change, education, and rural livelihoods, especially in the remote mountainous regions such as Karnali province. The WFP Country Strategic Plan (CSP) 2019-2023 aims to end hunger, achieve food security and improved nutrition, promote sustainable agriculture, develop greater food security among vulnerable communities, and build disaster resilience. Strategic outcome three of WFP primarily focused on improving food security and resilience to climate and other shocks by 2030 in vulnerable communities in remote food-insecure areas have improved food security. This outcome will support smallholder farmers, particularly women, by improving access to infrastructure and supporting measures to strengthen their adaptability to climate change.

26. WFP transferred USD 721,700, benefiting 27,510 beneficiaries following five interventions in climate adaptation and risk management activities in 2022.

- Rural Women's Economic Empowerment (RWEE) project.
- Climate Change Adapting for Food Security in Karnali (CAFS-Karnali).
- Women in Value Chain (WiVC) project.
- Karnali Local Infrastructure Support Programme (LISP) pilot, and
- Livelihood and Economic Recovery Programme (LERP).

27. **Development projects:** Following development projects are being implemented in the Karnali project, which focuses on improving local communities' adaptive capacity and food security.

- **Adaptation for Smallholders in Hilly Areas (ASHA) Project (ASHA).** A six-year "ASHA Project" was implemented by MoFE with the financial support of the International Fund for Agricultural Development (IFAD) in several districts of Karnali province, including Kalikot, from 26 February 2015 to 30 June 2023.
- **Agriculture Sector Development Project (ASDP).** Initiated in July 2018 and funded by the GoN and IFAD, ASDP covers 10 Karnali province districts, including Jumla, Kalikot, and Mugu. Envisaged to contribute to achieving SDG 1 and SDG 2, the project aims to reduce poverty and nutrition insecurity amongst women and men in hill and mountain areas and contribute to sustainable improvement in income generation and food security of smallholders and disadvantaged rural groups, focussing on selected high-value agricultural value chains.
- **Nepal Climate Change Support Programme (NCCSP).** The project aims to enable the government to adopt climate change policies and actions that increase the benefits and

38 MoAD, Agriculture Development Strategy (ADS) 2015-2035, Part: 2, Ministry of Agricultural Development, Kathmandu.
39 CBS (2017), Nepal Labor Force Survey 2017, Central Bureau of Statistics (CBS), Nepal
40 World Bank. (2022). Nepal Development Update October 2022 (English). Nepal Development Update. World Bank, USA
41 MoHP. (2023) COVID-10 Dashboard). Ministry of Health and Population (MoHP), GoN, Nepal. https://covid19.mohp.gov.np/
42 GoN & UNDP. (2020). Nepal Human Development Report, 2020 Beyond Graduation: Productive Transformation and Prosperity. Government of Nepal (GoN) and United Nations Development Programme (UNDP)

sustainability of public and public-private development efforts. Currently, NCCSP is implementing Climate Resilient Development Projects in 26 LGs.

- **Building Hope along the Karnali River Basin project in Nepal (Bhakari):** Mercy Corps is implementing a multiyear international emergency food assistance program from October 2020 to September 2023 covering six districts, including Jumla, Kalikot, and Mugu, to meet the emergency food needs of vulnerable and socially excluded households in Karnali River Basin.

28. **Climate Adaptation Fund Activities in Nepal.** Since its establishment in 2001 to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change, the Adaptation Fund (AF) has introduced several innovative financing approaches, and played a key role in building the national capacities of world's most vulnerable countries, including Nepal. Since 2010, the AF has committed more than US$ 830 million for climate change adaptation and resilience projects and programmes to more than 120 concrete, localized projects in the most vulnerable communities of developing countries around the world with 28 million total beneficiaries[43]**.** One of such projects is, "Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal' (CAFS-Karnali)" implemented by WFP as MIE and executed by the MoFE.

1.3 SUBJECT BEING EVALUATED

29. This is a summative evaluation of the project and covers the entire project components implemented over the last four years in the seven local government constituencies of Karnali province. The overall objective of the project is to improve household food security and adaptive capacity to current and future climate risks.

Duration:	Four years, October 2018 to October 2022
Geographical coverage:	7 RMs of Kalikot, Jumla and Mugu of Karnali Province
Total number of beneficiaries (targeted)	10,850 HH (Total 65,799 with Male 33,458 and Female 32,341)
Budget	US$ 9.52 million (Adaptation fund); WFP's contribution 0.75 million

30. The AF approved the project in May 2015. However, implementation was delayed by more than three years due to post-reconstruction works after the earthquake of April 2015. The delay was also inevitable because of the ongoing restructuring of state entities after the promulgation of the new constitution in September 2015 and accompanying local, provincial, and national (federal) elections. With the shift of the environment/ climate change portfolio previously being carried out by the (Ministry of Populations and Environment (MoPE)[44] to Ministry of Forests and Environment (MoFE), the memorandum of understanding was finalized in May 2018, aligning with the reformed governance structure of the country (cf para 11). WFP and MoFE prepared Standard Operating Procedures (SoP) jointly for project implementation in line with Nepal's new federal governance system. **Annex III** lists the key stakeholders and their roles in the project.

31. After the approval of the SOP following the first meeting of the National Project Steering Committee on 7 October 2018, an inception workshop was organized on 26 October 2018. The workshop endorsed the SOP, implementation modalities, and first year's implementation plan. **Annex IV** presents key project milestones.

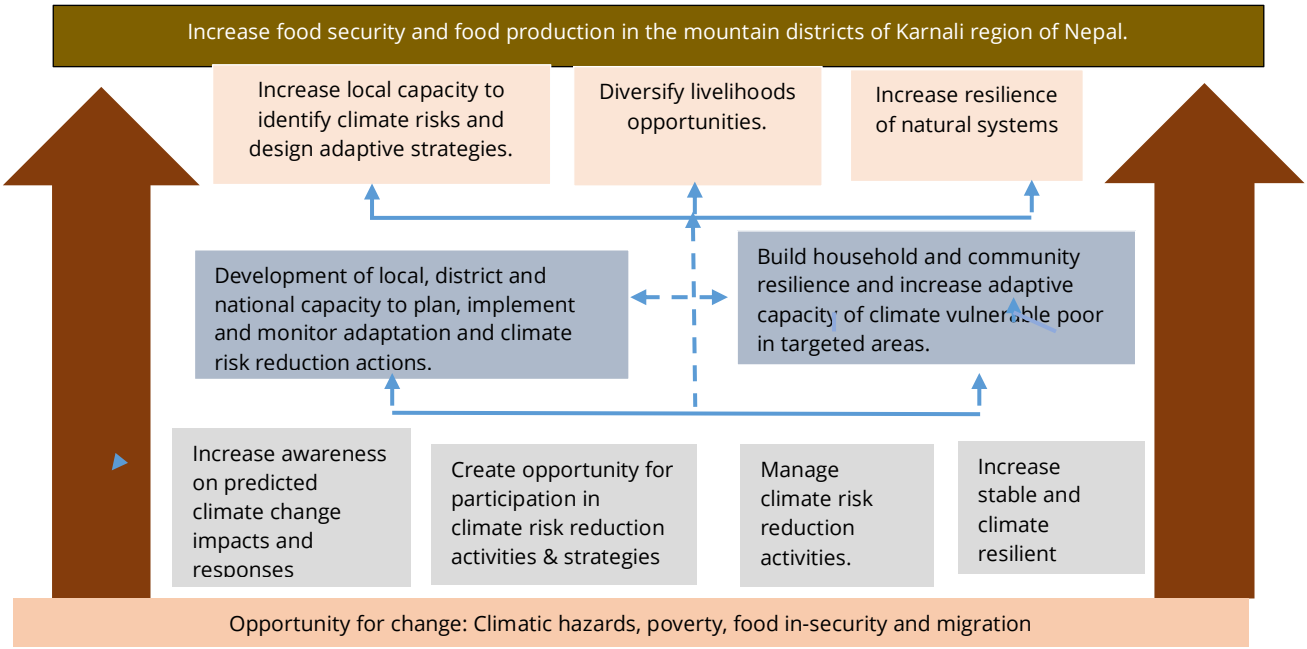
32. **Project Objective and Result Framework.** The project was designed to address poverty, food insecurity, malnutrition, and climate-induced threats to food production and security. As seen in the project's theory of change (Figure 1) below, the improvements in food security and food production in poor climate vulnerable Karnali province will happen when local, district, and national capacity to plan, implement and monitor adaptation and climate risk reduction actions are enhanced; and livelihoods opportunities of the people are diversified together with an increase in resilience capacity of natural

[43] https://www.adaptation-fund.org/af-10-years

[44] Mandates of this Ministry was transferred to other ministries to comply with the Constitutional provision to limit the number of ministers in the country to 25.

systems. These will require increased awareness of the target groups, including women, on predicted climate change impacts and responses; create opportunities for communities to develop climate risk reduction strategies, own and manage climate risk reduction activities and increase stable and climate resilient income climate vulnerable peoples. The results framework includes gender-responsive indicators at the different levels of the result chain.

Figure 1: Theory of Change (Reconstructed by evaluation team)



33. The project aims to increase the adaptive capacity of climate-vulnerable and food-insecure poor households by improving the management of livelihood assets and natural resources in the Karnali mountain districts of Nepal. Table 1 presents the objectives and outcomes of the project.

Table 1: Objectives and Outcomes of the project

Objectives	Outcomes
(a) Strengthen local capacity to identify climate risks and design adaptive strategies. (b) Diversify livelihood and strengthen food security for climate-vulnerable poor households in target areas and, (c) Increase resilience of natural systems that support livelihoods and reduces climate change induced stresses.	*Component 1: Develop capacity to plan, implement and monitor adaptation and food security actions at community, municipality, district, and national levels.* Outcome 1.1: Climate-vulnerable and food insecure households actively participate in developing local climate risk reduction strategies and actions. Outcome 1.2: Strengthened ownership and management of climate risk reduction activities and replication of lessons in key livelihood sectors. *Component 2: Build household and community resilience and increase adaptive capacity of climate vulnerable poor in target areas of Mugu, Kalikot and Jumla districts.* Outcome 2.1: Diversified and strengthened livelihoods, livelihood assets, and improved access to food for climate-vulnerable households.

34. An apparent mismatch can be observed between the objectives and outcomes. The project has three objectives but two components, with no objective-specific component for the third objective. When looking into the indicators, some indicators included in the Project Performance Report (PPR) in the third objective are outcome indicators, e.g., the status of forest resources; and others are obviously output indicators e.g., % of HHs with access to improved drinking water and % of HHs engaged in Multi-use Water system (MUS) technology. The FE collected data and information following the indicators measurement

procedures adopted by the baseline. Given that the indicators were neither defined unequivocally by the baseline, nor the project, data collection works turned out challenging and time consuming. Hence, some data were drawn directly from the project progress report (PPR) to avoid misinterpretation of results.

35. As the executing entity of the project, MoFE is responsible for overall coordination and provides the necessary support for project execution according to the approved work plan. MoFE established a Project Support Unit (PSU) headed by the Joint Secretary of the Climate Change Management Division supported by a Programme Manager (Under-Secretary) to support project implementation with detailed roles and responsibilities specified in the SoP. Besides this, a project steering committee (PSC) has been formed chaired by the MoFE Secretary where Joint Secretaries from related line ministries and WFP officials are invited as members to provide policy and technical guidance to the project.

36. WFP is responsible for the overall management of the project, including reporting to the AF. WFP has engaged three local cooperating partners (LCP), one in each project district, for implementing project activities.

37. **Analysis of planned activities to achieve outcomes**: The project has two components. The first component focused on developing local, district, and national capacity to plan, implement and monitor adaptation and risk reduction actions. Component two focused on building household and community resilience and increasing the adaptive capacity of climate vulnerable poor in targeted areas.

38. The project trained a total of 38,608 people[45] (45% female) on climate change adaptation; formulated and implemented climate resilient and gender-responsive Local Adaptation Plan of Action (LAPA) in seven rural municipalities (RMs); established Province Climate Change Management Information System (PCCMIS) and seven Municipal Argo -meteorological Information Centres; and, established and strengthened 113 community assets user groups[46].

39. The project created temporary employment of 336,355 days for 7,421 HHs (36% women)[47], and transferred cash amounting to US$ 223.2 for each household for their participation in constructing and rehabilitating community infrastructures, which provided short-term income during food-insecure months. Likewise, it established 138 rural micro-enterprises of 39 different types (such as vegetables, fruits, non-timber forest products (NTFPs, potato processing, nettle (*Sisno) p*rocessing, cold stores (meat shop), herbal tea, bamboo furniture, etc.). It trained 4,544 people (69% female) in farming, enterprise development, and livestock rearing.

40. The project expanded irrigation schemes in 960 ha of agriculture land benefitting 2,200 HHs; stabilized/ protected 72 ha of agricultural land, constructed 777 drinking water taps; established ten multi-purpose nurseries; planted 415,771 seedlings/ saplings of different (NTFPs), fruits, citrus, fodder, and timber in degraded sites and community forests.

41. The project has followed Adaptation Fund - Gender Policy Compliance with a strong gender equality and women empowerment component with an intersectionality lens and gender-responsive elements[48]. Of the total training and orientation to program participants, 62% were women. Likewise, 63% of enterprises are led by women. The project ensured the representation of at-least 50% of women in executing committees. The project had constructed different community assets, e.g., drinking water facilities, irrigation systems/canals, water collection ponds, community service centres. Furthermore, 36% of women got temporary employment by participating in Food Assistance for Asset activities while ensuring equal pay between men and women.

42. **Geographical Coverage and Outreach***.* The project covers 44 wards of seven LGs of three districts. The project benefitted 65,800 and 6,477 persons, directly and indirectly, comprising of 41% female

[45] WFP. (2023). Project Performance Report 2023 (final). Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal. World Food Programme (WFP), Kathmandu Nepal
[46] ibid
[47] ibid
[48] WFP. (2022). Gender Impact Assessment Report: Adapting to climate-induced threats to food production and food security in the Karnali region of Nepal (CAFS- Karnali) Project. World Food Programme (WFP), Kathmandu Nepal

participants[49]. Of the total beneficiaries, one-third are youth (33%)[50]. **Annex V** presents geographic location and beneficiary details.

43. **Assumptions:** Key assumptions of the project were:

- Community development priorities and adaptation priorities are easily combined into one plan;
- Current and immediate climate risks do not undermine planned improvements;
- Markets and technology complement livelihood diversification efforts.

Annex VI shows project assumptions and analyses their relevance, including influences on the project results.

44. **Changes in external environment:** The project was implemented when the country transitioned to federalism. Furthermore, the COVID-19 pandemic hit the country badly. Two years of time lapse between the date of the proposal submission and the approval by the AF (August 2013 to May 2015) and a delay in the implementation of the project by almost three years (May 2015 to October 2018) (cf para 29) resulted in changes of the external environment, which includes.

- **COVID-19:** The spread of the COVID pandemic since 2019 has hit almost every sector of the Nepalese economy, including remittance inflow, employment, and supply. As a result of the pandemic, the migration trend was reversed, with increased labour availability in the villages making households more dependent on farming[51]. However, it should be noted that the programme successfully completed all its planned activities despite the pandemic.
- **Natural disasters:** Landslides and floods were frequent in the area, where people lost their lives, livestock, and farmlands and encountered heavy economic losses. Kalikot, Jumla, and Mugu districts of Karnali Province were worst hit by heavy rainfall in October 2022, where some infrastructures built or repaired by the project were damaged due to rain-induced floods.
- **Local, Provincial, and Federal Elections.** Two elections were held in the country during the project period, the local-level election in May 2022 and the provincial and federal elections in November 2022. Several election codes of conduct executed by the Election Commission and the engagement of local peoples, community leaders, and incumbent officials in election-related works and campaigns directly and indirectly affected some of the project activities.
- **Frequent changes in leadership within MoFE:** During the project period, key government officials (National Project Director and National Project Manager) at the Climate Change Management Division were transferred twice. Frequent changes in government leadership roles results in challenges in terms of ensuring intergovernmental coordination and integrating lessons of the project in the policy processes.
- **Changes in local leadership:** Changes in the local leadership after the local election of May 2022, including frequent transfer of the local government officials, also impacted the project results, especially for integration and sustainability within the LGs.

45. **Previous Evaluations and Studies**: Prior to this evaluation, the project conducted a baseline survey, a mid-term review and the gender impact assessment and documented lessons/ best practices. The findings from these studies are integrated in this evaluation.

- **Baseline survey (hereafter baseline)**[52] was carried out to establish the baseline data aligning with the result framework. Some indicators were imprecisely defined, and baseline values for some result indicators were missing. Likewise, data disaggregation was not done adequately, especially by socio-economic groups.

[49] ibid
[50] Ibid
[51] Bista, R., Parajuli, R., Giri, K., Karki, R., & Song, C. (2022). Impacts of COVID-19 pandemic on the livelihoods of rural households in the community forestry landscape in the Middle Hills of Nepal. Trees, Forests and People, 9, 100312.
[52] NEWERA. (2020). Baseline Report: Adapting to Climate Induced Threats to Food Production and Food Security in The Karnali Region of Nepal (2018-2022). New Era, Kathmandu, Nepal

- **Mid-term review (hereafter midterm review)**[53] was carried out by applying the remote data collection (RDC) technique followed by field observation, mainly due to movement restriction as a result of COVID-19 lockdowns.
- mid-term rates the project as highly relevant, satisfactory for effectiveness and efficiency, with a likelihood of sustainability. The mid-term rated project "satisfactory." However, it did not look after the achievements of the output indicators.
- **Gender impact assessment (GIA)** study was carried out in June 2022 in selected project areas to collect and document good practices and positive impact on gender equality and women empowerment to inform the future similar programs for WFP Nepal. The study concludes that the project positively impacted the community, the lives of women and men, and people from marginalized groups while also supporting the GEWE and Leaving No One Behind agenda.
- **Lessons learned document:** The project prepared a "Good Practices and Learning Report" in August 2022 based on learning of the project among the stakeholders involved in the planning and implementation. This report provides learning by thematic areas, which include overall project management and implementation modalities, vulnerabilities assessment and beneficiaries targeting, resilient climate infrastructures, resilience livelihoods, integration of gender equality, disability, and social inclusion, along with capacity building and innovation.

1.4 EVALUATION METHODOLOGY

Evaluation Design

46. The evaluation is based on the project's Theory of Change and used Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) standard evaluation criteria of coherence, relevance, effectiveness, efficiency, impact, and sustainability (Table 3). The evaluation also addressed questions related to transparency, and timeliness, and usefulness of intervention and mainstreamed GEWE throughout these six criteria, as appropriate. **Annex VII** presents evaluation framework, including evaluation criteria, questions/sub-questions, data collection methods, data sources and analysis methods. **Annex VIII** presents the evaluation timeline.

Table 2: Key Areas of Enquiry

Evaluation Criteria	Evaluation Question
Relevance	*1. To what extent were the project results consistent with the goal, objectives, and strategic priorities of the AF, as well as the country priorities (local and national sustainable development plans, priorities, and policies, as well as to guidance from international conventions)?* 1.1. To what extent the activity supported by CAFS-Karnali is relevant to local needs in improving resilience, reducing vulnerability, and increasing adaptive capacity against adverse effects of climate change?
Effectiveness	*2. To what extent the CAFS-Karnali has achieved the intended outcome(s)? Did the extent of achievement differ among men and women participants?*
	2.1 To what extent the project achieved all outputs and outcomes satisfactorily?
	2.2 To what extent the LCP have regularly recorded and acted on intended and un-intended consequences on project beneficiaries, including women and climate vulnerable households?
Efficiency	*3. To what extent were the project's objectives and components clear, practical, and feasible within its time frame?*

[53] NARMA. (2021). Mid Term Review Report: Adapting to Climate Induced Threats to Food Production and Food Security in The Karnali Region of Nepal (2018-2022), NARMA Consultancy Pvt Ltd, Kathmandu, Nepal

Evaluation Criteria	Evaluation Question
	3.1 How cost-effectively the project spent funds allocated to the different components of the projects to convert into results, in line with the timelines prior planned and agreed?
	3.2 How far partnership arrangements and clarity of role and responsibilities among partners contributed to the project objectives/outcomes?
Gender Equality and Women Empowerment (GEWE)	*4. To what extent the CAFS-Karnali project addressed GEEW in design, implementation and monitoring?*
	4.1 To what extent did the CAFS design and implementation contributed or (not) to the AF/WFP goal of gender equality and national gender policies and strategies?
Impact	*5. To what extent does the project contribute to increasing the resilience of communities vulnerable to climate change?*
	5.1 To what extent did the project contribute to increasing the resilience of communities vulnerable to climate change?
	5.2 To what extent CAFS-Karnali's influence could be observed in neighbouring areas or other wards not reached by the project in the same RM.
Coherence	*6. How well does the CAFS-Karnali intervention (two components) fits with other interventions implemented in Karnali region, with other WFP interventions and national climate change policy and national adaptation plan?*
	6.1. To what extent CAFS interventions coherent with the policies and programs of government, international human rights principles and standards, and other WFP partners operating in Karnali region such as IFAD (ASHA and ASDP), UNDP's NCCSP?
Sustainability	*7. What is the likelihood that the results of the project (increased resilience, increased adaptive capacity etc.) will be sustainable after termination of external assistance?*
	7.1 To what extent systems and/or mechanisms built by the project (CAFS-Karnali's key interventions) will remain/be continued beyond the life of the project? What are the evidence of government's ownership of project activities and achievements?
Monitoring and Evaluation Systems	*8. How was the quality of the project M&E systems according to 1) M&E plans, 2) indicators, 3) baselines, and 4) alignment with national M&E frameworks?*
	8.1. To what extent M&E plan has been clearly laid out that what are needs to be monitored based on predefined programme logic?
	8.2. To what extent the project M&E system made the best use of existing (local, provincial, federal) monitoring and evaluation systems, including existing indicators?

47. The evaluation followed a non-experimental design with mixed-method approaches drawing on quantitative and qualitative data collection methods. The non-experimental approach addresses the cause-and-effect relationship by examining the situation before and after implementation, i.e., comparing the endline results against the baseline.

48. Given that the GESI assessment was not carried out before and during the implementation of the project, the evaluation thoroughly reviewed WFP's Gender Impact Assessment Report 2022 of the project, relevant findings, and conclusions of LAPAs, and drew data and information from the survey carried out as part of this evaluation.

49. The evaluation adopted the UNEG ethical guidelines for evaluation. Accordingly, the evaluation safeguard and ensure ethics at all stages of the evaluation process. This includes, but is not limited to, obtaining informed consent; protecting respondents' privacy, confidentiality, and anonymity; ensuring cultural sensitivity; ensuring fair representation of respondents (including women and socially excluded

groups); and doing no harm to respondents or their communities. Only participants who gave verbal consent were involved in the evaluation. Likewise, safety measures were followed to protect respondents from COVID-19.

Evaluability Assessment

50. Given that this FE was conducted just after the completion of the project, it could identify several useful results which could be used not only in the design of the follow-up project but also in designing similar kinds of projects in the future. While a short time difference between the project completion and initiation of the evaluation permitted the evaluation to interact with many stakeholders and minimize the sample replacement rate, many reports and data required for the evaluation were either under preparation or yet to be prepared.

51. Other limitation for the evaluation includes (a) mixed knowledge and experience of newly elected leaders about the CAFS-Karnali project and its approaches and (b) some of the community assets built through the project assistance were yet to be handed-over to LGs and communities thus it was yet to come into use at the time of data collection and hence was not possible to assess their effectiveness or impact. (Refer to limitations section – pg. 19-20)

52. Before submitting the first Project Performance Report (October 26, 2018- October 26, 2019), the project revised few of the targets considering the unavoidable delay in implementing the project by almost 5 years. By the time the project was implemented, the country had passed through several changes in socio-economic conditions, political system, governance, and state restructuring. 761 governments, with one federal, seven provincial, and 753 local governments were established, three levels of elections were completed, and respective governments were formed accordingly. Few output targets were associated with number of political/administrative units. At the time of project design/approval, Nepal had unitary ruling system, hence, the lowest political/administrative units were called Village Development Committee (VDCs), District Development Committee at district level and Regional Offices at regional level. Nepal adopted the federal ruling system since September 2015; hence, the lowest level of political/administrative unit has been called Local Government (LG) combining 3-4 former VDCs into one LG. Total 22 VDCs are target units during project design which has been 7 LGs after the federalization during project implementation. Hence, some output indicators that had target associated with number of former VDCs have been automatically aligned with changed number of LGs. This contextual change has been reflected in the project SOP, inception report and the APPRs as well. Hence, only the relevant project indicators and targets were included and reported since the first APPR (project indicators and result tracker tabs of the APPRs), which were approved by the AF as well. Hence, the project continued reporting the project results against the 25 indicators and their targets through the APPRs.

53. Providing district disaggregated data along the project targets and indicators, especially for the output level targets, is necessary. If the district or RM level data is not available and only incremental progress is shown in the project performance reports, not only is it cumbersome for the evaluation to validate the project progress by targets and indicators, but establishing a clear linkage between outputs, outcomes, and objectives also.

Data Collection Methods

54. The data collection methods comprise of review of project documents, quantitative survey, and qualitative tools. **Annex IX** presents detailed methods followed for data collection (evaluation methodology). **Annex X** presents the tools/instruments used to collect data, whereas **Annex XI** presents the fieldwork agenda, including the field schedule.

55. **Secondary literature review:** The evaluation reviewed project-related documents, such as the approved proposal; SOP; Inception Report, Baseline Survey Report; Midterm Review Report; Good Practices and Learning; Gender Impact Assessment Report following content analysis methods to document progress and lessons learned during implementation. The evaluation also reviewed the PPRs, previous evaluation recommendations/ action plan, monitoring reports, and other data information provided by the project, such as LCPs' annual reports, LAPAs of seven rural municipalities, and national and local level climate-related policy documents and studies.

56. **Quantitative survey:** This evaluation adopted the sampling design of the baseline survey, which followed “cluster sampling” considering the large geographical area. The evaluation estimated the sample

size of 618 following "the two-stage cluster sampling formula. However, the evaluation interviewed 720 respondents (Table 3) by making upward adjustments to the sample size due to the rounding effect of clustering. The evaluation interviewed women respondents separately when the respondent was male, thus reaching 720 women respondents. The survey used a computer-assisted personal interview (CAPI) technique for data collection by deploying trained enumerators and supervisors.

Table 3: Respondents by LG Constituencies and Sex

LGs	Selected cluster (ward number)	HHs surveyed	Women respondents
Palata, Kalikot	2, 3, 9, 7	144	144
Pachaljharana, Kalikot	4, 7, 8	108	108
Tila, Jumla	6, 2 & 8	108	108
Tatopani, Jumla	7 & 8	72	72
Hima, Jumla	7	36	36
Soru, Mugu	1, 9,10	108	108
Khatyad, Mugu	1,3, 7, 11	144	144
Total	20	720	720

57. **Qualitative Methods**: Qualitative methods provided critical insights into beneficiaries' perspectives, program implementer's' opinions, and that of key stakeholders. Likewise, it was primarily used for explanation building and exploring underlying causes for the observed situation. The qualitative methods include focus group discussions (FGDs) with project beneficiaries (women, men, disadvantaged and vulnerable groups), Key Informant Interviews (KII), and observations.

Key informant interviews (KII): The evaluation selected the respondents purposively based on their involvement in the project. The evaluation conducted an unstructured interview with 91 persons covering various stakeholders (Table 4). The interview focused on the extent of involvement in project activities and evaluation questions discussed above. The interviews also validated emerging findings. **Annex XII** presents a list of persons/stakeholders consulted during the evaluation.

Focus group discussion (FGD): The evaluation conducted 27 discussions with women entrepreneurs/ women enterprises, women farmer's groups, forest user groups, and water user groups to understand qualitative feedback and insights into program implementation. The discussion mostly explored how project interventions contributed to reduced climate vulnerability or improved adaptive capacity. It further explored problems and challenges encountered for the sustainable operation of the project-supported activities. A total of 299 people participated in the discussion comprising 124 women (41.8%).

Field observation: The evaluation team also observed project-supported interventions, such as income-generating ventures, community infrastructure, such as drinking water, community service center, and irrigation facilities, and conducted an informal interview with the persons managing those interventions focusing on the effect of these interventions on building community resilience against the climate impacts. Likewise, it also supported to validation of information collected from quantitative methods.

Data Triangulation and Validation

58. The evaluation followed an iterative approach throughout the research period: visiting and revisiting the data and connecting them with emerging insights, progressively leading to refined focus, and understanding. This allowed for the verification of emerging findings through repeated conversation and analysis. Field diary and notes were systematically organized, classified, interpreted, and synthesized following content analysis methods for making explicative and valid inferences.

59. The evaluation followed "empirical-analytical methods" of data triangulation and validation that focused on preparing interview formats and guides, preparing narratives, and validating narratives with

other respondents[54]. During the data collection processes, emerging patterns from interviews and field observation were discussed with respondents, and reasons for the observed situation were explored. Likewise, the evaluation validated information from a quantitative survey based on a logical and consistent check to minimize human error. The evaluation organized "a participatory reporting workshop" with the field data collection team and experts to solicit their views and observations aligning with the evaluation questions. Likewise, **Annex XIII** presents data quality assurance mechanisms applied in the evaluation.

Table 4: Key Informant Interviews

SN	Respondents	Number
1	WFP staff (Country and Project team)	10
2	Ministry of Forest and Environment	5
3	Ministry of Industry, Tourism, Forest, and Environment (Provincial)	2
4	Other provincial-level stakeholders (MoLMAC, MoITFE)	4
5	Divisional Forest Officials	2
6	Implementing partners	3
7	Local government elected leaders (Present and ex-leader)	38
8	Local government officials	23
9	Other stakeholders	4
	Total	**91**

Data Analysis

60. The data analysis focused on responding to the key evaluation questions and measuring progress on the project result indicators. The achievements of the result indicators (objectives and outcome levels) were assessed against the end of the project target) by comparing with the baseline situation as relevant. Furthermore, the evaluation explored underlying reasons for the progress, primarily by supplementing information collected through qualitative methods.

61. The evaluation used simple statistical tools such as mean, range, and percentage to analyse quantitative data. The results were disaggregated by gender, climate-vulnerable households, caste, household head, and age group of the respondents to understand differential impacts. Likewise, the evaluation used statistical tests such as Chi-square and t-tests to determine whether changes were statistically significant before and after intervention or differential impacts between groups at a 95% confidence interval (CI).

62. To measure program efficiency, the evaluation assessed efficiency through a Cost and benefit analysis (CBA). An analysis of cost data was used from the project expenditure. The final evaluation estimated the incremental net income of the households from project intervention, i.e., net household income from climate-smart farming practices relying on a tested methodology adopted in a previous CBA for climate adaptation programs in Nepal and elsewhere.

63. The evaluation focused on the constant comparison, imaginative exploration, and reflection. The qualitative data were used for explanation building in narrative form, focusing on "how" or "why" something happened[55].

64. The evaluation computed achievements, which is ratio of the progress to the targets expressed in percent, where above 100 % indicates progress exceed the target. Based on team discussions and data

[54] Basnyat, B., Treue, T., Pokharel, R. K., Kayastha, P. K., & Shrestha, G. K. (2023). Conservation by corruption: The hidden yet regulated economy in Nepal's community forest timber sector. *Forest Policy and Economics*, *149*, 102917.
[55] Yin, R. K. (2011). *Applications of case study research*. Sage publication

validation from different sources, the evaluation rated performance aligned with the AF evaluation guidelines[56]. **Annex XIV** provides project performance rating and assessment criteria.

Limitations and Mitigation Measures

65. Table 5 presents the major methodological and programmatic limitations of the evaluation and the mitigation measures adopted.

Table 5: Limitations and Mitigation Measures

METHODOLOGICAL LIMITATIONS	
Limitations	**Mitigation Measures Applied**
Limited disaggregation of baseline data: Baseline data was not fully disaggregated across different respondent categories, limiting comparability against final evaluation results.	• Analysis of data by respondent categories and use of appropriate statistical tests for drawing inferences • Interview additional women members to solicit their perception on selected indicators
Limitations around output data: Delays in obtaining some of the project completion data as the programme unit were working on the APPR at the same time the evaluation analysis was also taking place. **Similarly, some of the output-level indicators have been holistically reported, as a result of which, district-based disaggregation was not possible.**	• Robust triangulation of the data and information received through multiple sources, review of reliable secondary sources of information, field observation (site level) • Regular interactions, clarifications, and discussions with the PSU team, beneficiaries, and LCPs • Adoption of empirical, analytical methods of data analysis
Turnover in local government leaderships: Difficulties in getting reliable data and information due to the replacement of local leaders because of local elections held in May 2022	• Increase the number of KIIs with the stakeholders and interview available past leaders • Increase interactions with beneficiaries and former LCP staff
Analysis of efficiency: Financial data of the project's annual performance report was used for efficiency analysis	• Interview data suggests that there are no substantive concerns over cost efficiency; existing government norms were used to ensure the best value for money
Caveat in comparison between mid-term review findings and the results of final evaluation: The mid-term review of the project was conducted using remote survey techniques, owing to the travel restrictions imposed due to COVID-19 lockdowns. As a result, the MTR suffered from high non-response rates and therefore a compromised sample size. While the final evaluation tries to mitigate those gaps with a robust methodological design, comparisons made between MTR and the FE are indicative and should not be used to generalize results.	• Declaration of the caveat. • Drawing indicative comparisons between MTR and final evaluation, and not using those results to generalize the performance of the project.

[56] AF (nd). Guidelines for adaptation fund project/programme final evaluations. Adaptation fund

PROGRAMMATIC LIMITATIONS	
Limitations	**Mitigation measures adopted**
Limitation of tools used to assess food security and negative coping strategies indicators: WFP uses its corporate survey tools to assess food security status and prevalence of negative coping strategies among its beneficiaries. As the tools refer to a recall period of seven and 30 days respectively, and the last project transfer was made prior that period, recall bias is a major programmatic and methodological limitation of the evaluation. Furthermore, while the Livelihood-based Coping Strategies Index labels 'selling of female livestock' as a negative coping strategy, it was found that in the programme districts of Karnali region, selling of female livestock is practiced commercially and is not necessarily a negative coping strategy adopted to mitigate food security risks.	• Declaration of the caveat. • Considering results on food security and negative coping strategies indicators as indicative findings that cannot be used to generalize the performance of the project.
Programmatic limitation: The project has three objectives but two components, with no objective-specific component for the third objective. When looking into the indicators, some indicators included in the Project Performance Report (PPR) in the third objective are outcome indicators, e.g., the status of forest resources; and others are obviously output indicators e.g., % of HHs with access to improved drinking water and % of HHs engaged in Multi-use Water system (MUS) technology. Given that some of the indicators were neither defined unequivocally by the baseline, nor the project, data collection works turned out challenging and time consuming.	• The FE collected data and information following the indicators measurement procedures adopted by the baseline. • Referral to project's performance reports submitted to AF periodically during project lifetime, and a comprehensive analysis of output-level indicators, to reflect upon outcome-level changes observed over time.
Limitations of analysis related to impact and sustainability due to short time difference between project completion and FE data collection: Given that this FE was conducted just after the completion of the project, it could identify several useful results which could be used not only in the design of the follow-up project but also in designing similar kinds of projects in the future. While a short time difference between the project completion and initiation of the evaluation permitted the evaluation to interact with many stakeholders and minimize the sample replacement rate, many reports and data required for the evaluation were either under preparation or yet to be prepared.	• Considering this limitation, the report explicitly mentions that findings on impact and sustainability were made based on the future direction that the project would likely take in terms of sustaining activities and achievements and eventually transitioning to longer-term impact.

2. Evaluation Findings

2.1 RELEVANCE

QUESTION 1: To what extent were the project results consistent with the goal, objectives, and strategic priorities of the AF, as well as the country priorities (local and national sustainable development plans, priorities, and policies, as well as to guidance from convention)?

Findings 1: The project has demonstrated consistency with the AF's goal of accelerating and enhancing the quality of adaptation actions in developing countries and to support country-driven projects and programmes, innovation and multi-level global learning and sharing for effective adaptation, throughout the project period. The evidence shows that project has been one of the few showcase projects implemented in Nepal between 2018 and 2022, which has contributed to increase in climate resilience of the highly vulnerable communities residing in mountainous Karnali districts of Nepal.

Findings 2: The project's results are highly consistent with AF's strategic priorities such as building climatic resilience of the households and ecosystem through quick adaptation measures (e.g., infrastructure) to resilient income (apple farming). The project activities are in line with AF's priorities in helping vulnerable communities to adapt and build resilience to climate change.

66. **Consistency with AF Goals**: The project supported the construction of resilient, productive, and protective community assets to assist the most vulnerable communities of the Karnali region to adopt and build resilience to climate change. This goes with the AF's goal to accelerate and enhance the quality of adaptation action in developing countries and supporting country-driven projects and programmes, innovation and multi-level global learning and sharing for effective adaptation. Likewise, project's interventions toward sustainable management of forest resources and sustainable farming practices contributed to building the resilience of the natural system. The project supported several locally driven concrete actions to climate change such as adoption of multi-use water systems (MUS) technology, rehabilitation of irrigation projects, lifting water from Karnali river, creation of low-cost rustic stores, promotion of post-harvest technologies by targeting the most vulnerable individual and groups and ensured that the benefits reach to them. At the beneficiary level, climatic vulnerability is high in the Karnali Province due to higher poverty, food insecurity, low income, lower HDI and GDI, and low adaptive capacity[57].

67. **Action, Innovation, Learning and Sharing Experiences:** As an action-oriented project, it was innovative and generated several learnings, specifically by creating employment opportunities during the challenging period of COVID-19 when people were desperate to find work and employment at home, for both those who could not go to India for seasonal employment and those who returned home due to COVID-related lengthy lockdown in India, and aggravated further by mobility restrictions at home as well. The project service delivery approach is innovative, which comprises (a) integrating climate actions in local government planning processes; (b) diversification of livelihoods for increasing stable and climate resilient income of the climate vulnerable HHs; (c) ensuring ecosystem resilience, and; (d) constructing climate adaptation infrastructure by building stakeholders' capacity for climate adaptations, implementing adaptation actions for building resilience, and engaging LGs in designing and implementing adaptation actions. The approach undertaken by the project was found to be forward-looking and innovative and corresponds to AF's strategic pillars[58]. The project has already produced two important evidence documents - the gender impact assessment and documentation of lessons learned and best practices.

68. **AF Strategic Pillars**: Of the three strategic pillars of the AF, the project contributed towards implementing concrete adaptation actions on the ground with higher financial efficiency and utilizing nearly 90% of the fund to climate-vulnerable households. In addition, the project developed several innovative practices and disseminated related learnings (e.g., lift irrigation using national electric grid line).

- The project succeeded in building climatic resilience of the households and ecosystem through quick adaptation measures (e.g., infrastructure) to resilient income (e.g., apple farming), which

[57] MoFE. (2021). Vulnerability and Risk Assessment and Identifying Adaptation Options: Summary for Policy Makers. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal

[58] AF. (2018). Medium- Term Strategy 2018-2022. Adaptation Fund (AF).

contributed to building the adaptive capacity of both the ecosystem and livelihoods. Likewise, the project integrated environment and social safeguard measures during community infrastructure construction and prepared the risk mitigation plan, thus reducing adverse impacts from climate adaptation actions. Not only involvement of the communities during the vulnerabilities ranking, but also validating it, had increased ownership of the communities. Innovations like lift irrigation using national electric grid that the project introduced are appreciated by the stakeholders.

- **Project shared its progresses and lessons in national and international meetings:** The project produced different case studies, knowledge sharing products, e.g., gender studies and lesson learned documents, and had media coverage on its best practices, such as diversifying income, and solar-pumped irrigation facilities. It also produced video documentaries and supported the government in disseminating best practices at international forum, e.g., UNFCC/CoP.
- **Contribution to AF Result framework Outcomes:** Review of the CAFS-Karnali activities and results show a high level of consistency with AF's 8 outcomes[59] as mapped in in Table 6.

Table 6: Extent of Consistency between AF's Strategic Outcomes and Project Results

AF Outcome	Corresponding CAFS-Karnali Activities and Results
Outcome 1: Reduced exposure to climate-related hazards and threats	The project reduced exposure to climate-related hazards and threats through the implementation of activities like the promotion of MUS technologies and riverbed rehabilitation
Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Increasing capacity of targeted institutions, specifically LGs and CBOs and establishment of Provincial Climate Change Management Information System (PCCMIS) within the climate change section of the MoITFE in the Karnali Province and seven Municipal Agro meteorological Information Centres in each RMs to support the reduction in exposures to climate-related hazards and threats
Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	The evaluation results show more than 85% beneficiaries aware of negative impacts, which is a significant improvement compared against the baseline value of just over 70%. Likewise, nearly 72% HHs demonstrated knowledge of appropriate responses.
Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	Establishment of Coordination Committees at different level-, local, provincial, and federal level with inter-sectoral coordination and engagement of sectoral agencies in LAPA formulation at local level contributed to increase adaptive capacity within relevant development sector services.
Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress	Project successfully created 118 community assets such as community service centres, NTFP collection centres, uplift irrigation schemes, among other crucial community assets
Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	The project established 183 income-generating ventures and imparted skills to 3,382 vulnerable people (71% women). The project generated an annual household income of US$ 67.5[60] from farm-based adaptation action and US$ 31.8 from income-generating ventures. In addition, the project also generated temporary wage employment, amounting to US$ 1.72 million, benefiting 7,421 households.
Outcome 7: Improved policies and regulations that promote and enforce resilience measures	The project assisted the MoFE to amend Climate Change Policy 2011 and develop LAPA Framework. Project's inputs were highly appreciated by the EA.

[59] Adaptation Fund, Strategic Result Framework (Amended in March 2019)
[60] The average conversion rate of 1 US$ for 2022 was NRs 127.5

AF Outcome	Corresponding CAFS-Karnali Activities and Results
Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies	Good practices and lessons learned document and LAPAs support the government to diffuse innovative adaptation practices. Likewise, the project supported to develop vulnerability assessment tool, MUS technology and establishment of climate smart village.

69. **Contribution to AF Impacts**: The project adopted a three-pronged strategy which contributed to AF impacts in strengthening resilience, enhancing adaptive capacity, and reducing vulnerabilities of people, livelihoods, and ecosystems. Of the five core indicators for measuring impacts, the project contributed to four indicators related to the number of direct and indirect beneficiaries reached; income increased, assets produced, developed, improved, or strengthened, and natural assets protected and rehabilitated. The project reached 72,277 people, comprising 65,800 direct beneficiaries through different climate awareness, capacity building, and community infrastructure. Four in every five households (84.4%) have climate-resilient income, compared with an average amount of NRs 138,114 at the 2019 constant price. Likewise, nearly half of the HHs (50.8%) adopted climate-resilient agriculture practices generating a net income of NRs 8,716 per year, which is 17.1% of the total farm income. The environmental benefits score is 56.9%, slightly higher for women (59.0%). In addition, availability of water for irrigation/ drinking water along with forest products has increased.

70. The evaluation rated the project's contribution to AF's impact 'highly satisfactory' considering project's success in diversifying livelihood opportunities among the target beneficiaries, improvements in the short-term food security and likely to contribute to the mid-term and long-term food security through climate-resilient community infrastructures and supported protecting and managing the natural resources sustainably.

71. **Consistency with the Sustainable Development Goals (SDGs)**. The project directly contributed to achieving two SDG targets, i.e., climate action (goal 13) and zero hunger (goal 2), by building the resilience of people experiencing poverty and reducing exposure and vulnerability to climate-related extreme events while improving food and nutritional security. It further complements to seven other SDGs targets. It supported reducing poverty by diversifying livelihoods and increasing income; good health and well-being by promoting improved cooking stoves. It also contributed to gender equality by targeting women in adaptation actions and social and economic empowerment. The project increased access to drinking water and multiple uses of water and thereby supported the achievement of SDG targets on clean water and sanitation. It improved access to affordable and clean energy by supporting micro-hydropower. The project also contributed to reaching SDG targets of life on land through plantation and sustainable management of forests. It also strengthened partnerships by implementing federal, provincial, and local climate adaptation actions.

72. **WFP Country Strategic Plan (CSP) 2019-23**: The project is aligned with WFP's Policy on Building Resilience for Food Security and Nutrition Policy 201561, which reiterates the need for developing realistic planning scenarios and formulating risk mitigation and adaptation programs targeting food-insecure and vulnerable populations. The project contributes to the WFP- CSP (2019-2023) of ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture. Out of five strategic objectives (SOs), the project results (objectives, outcomes, and outputs) align with SO3, i.e., improving food security and resilience of vulnerable communities in remote food-insecure areas have improved food security and resilience to climate and other shocks by 2030. The project contributes to WFP's Gender Equality and Women Empowerment (GEWE) Agenda, along with WFP's mission of saving lives, changing lives, and supporting countries in their quest to achieve the SDGs.

[61] "Policy on Building Resilience for Food Security and Nutrition" (WFP/EB.A/2015/5-C)

QUESTION 1.1: To what extent the activity supported by CAFS-Karnali is relevant to local needs in improving resilience, reducing vulnerability, and increasing adaptive capacity against adverse effects of climate change?

Finding 3: Targeted to the most vulnerable districts of Nepal's mountain ecosystem, and the people in Karnali region, the project has appropriately responded to the beneficiaries' needs. The resilient, productive, and protective community assets constructed by the project in coordination with the local governments in the project areas have created avenues to reducing climatic shocks and stresses, particularly water scarcity and water-induced disasters, in the years to come in Nepal's remote and mountainous Karnali province.

Finding 4: The project activities have strengthened LGs' capacity to respond to the negative impacts of climate change by building several community assets. All LGs have their LAPAs. Ownership and implementation of LAPA in the future would result into improvements in food security, resilience and reduce vulnerability and increase adaptive capacity at both beneficiary and local government level. Being engaged in the promotion of a climate-friendly agriculture system for food security, nutrition and diversification of livelihoods, the project has contributed to increasing adaptive capacity from beneficiary to the national levels.

73. The project was designed in 2013.However, the SOP prepared in 2018 incorporated the changed context by provisioning Local Project Coordination Unit (LPCU) and revised the result framework targets to align with the changed political context, specifically engagement of local governments in climate actions. The LPCUs were established in all 7 RMs and involved them in selecting and prioritizing adaptation related community projects within their jurisdictions. The project revised indicators and targets prior to the submission of the first project performance report (26 October2018 to 26 October 2019) after the inception workshop aligning with the changed context. However, most of the indicators and targets proposed in the design phase were retained, with minor changes.

74. By targeting the most vulnerable districts of the mountain ecosystem, and the people in Karnali region, the project has appropriately responded to the most basic needs of the people, which is improving food and nutrition security and creating short-term and quick employment. Most vulnerable municipalities are concentrated in the Karnali Province. Among the provinces, Karnali Province has a very low adaptive capacity to respond to climate change's consequences due to a lack of access to resources and services, including lower HDI and higher incidence of poverty. The project activities have contributed to addressing climatic problems while increasing the adaptive capacity of local communities.

75. Vulnerability and Risk Assessment (2021)[62] showed that project intervention municipalities had high to very high vulnerability with low to very low adaptive capacity. The climate-induced hazards are likely to increase in the area both in the medium and long term, whereas people have limited capacity to respond to the climatic crisis. The project supported building the adaptive capacity of local communities to cope with extreme climatic events following a livelihood-focused approach to climate adaptation. It diversified the livelihoods of local communities for resilient climate income through agro-forestry practices, sustainable management of forests and farm resources, and supporting income-generating ventures. It also supported building community infrastructure such as drinking water and irrigation facilities. These actions echo the adaptation options proposed for the Karnali province.

76. Major climatic extreme events faced by respondents include landslide, drought, and flood. The project worked directly on addressing these problems by promoting drought-resilient farming practices, promoting agro-forestry practices, promoting bio-engineering techniques for slope stabilization, and

> "Drought is one of the major problems of our rural municipality. We approached many agencies to help us address this problem; however, none supported us. PACE, through WFP_CAFS helped us to build an irrigation canal last year. Now I grow vegetables for selling in the markets. The project is a "God Gift" for our rural municipality. Many have opportunities to diversify their livelihoods.
>
> *A women farmer, Tila*

[62] ibid

promoting multiple usage of water resources. Not only have these interventions supported to address the climatic risk, but in diversifying the livelihoods of local communities as well.

77. Major impacts of climate change as reported by the respondents include decreased crop production/ productivity, land degradation, and crop loss and failure. The survey results revealed that project has responded to these problems and supported to enhance agro-ecosystem services aiming to increase production and reduce food insecurity by creating short-term local employment opportunities through community infrastructure, increased income from the farming activities such as tunnel farming, income generating ventures, and supporting the long-term climate resilient income from agroforestry practices such as apple farming) climate resilient. Hence, the project addresses the problems of target groups, especially climate-vulnerable households.

78. **Addressing Local Government's Needs and Priorities**. The project worked on addressing the structural problems of climate impacts by building the capacity of the LGs to plan and implement climate actions. The project actively engaged the LGs through the LPCU in prioritizing and monitoring the adaptation actions and thereby built the capacity of the LGs on climate actions.

79. The project also contributed to LG priorities of "economic well-being and infrastructure development" and saving the lives, public, community, and private assets from climate disasters in their constituencies. The project complements prioritized adaptation actions identified by the LAPA for all LGs, especially on building a climate-resilient society.

> "Our development priorities are community infrastructure, such as drinking water schemes and roads and improving the people's economic well-being and food security. The project directly contributed to our needs through the activities such as constructing an irrigation canal and supporting poor people to establish enterprises and be entrepreneurs. They constructed high-quality infrastructure timely, which is beyond our capacity".
>
> A Rural Municipality Mayor

80. **Province's Priorities**. The project activities are consistent with Karnali province's first periodic plan (2018/19-2023/24), which aims for self-sufficient production (agriculture, industries, medicinal herbs, forest products, etc.). The plan intends to manage climate-induced risks, develop climate-friendly infrastructure, and strengthen institutional capacity for climate actions[63]. The project complements the provincial government's actions by strengthening LGs' capacity for climate actions. It also contributes to the provincial SDGs commitments on poverty, food security, and climate adaptation and mitigation.

81. **National Development Priorities**. The PSU has responded to MOFE's requests through NPSC and PSU. The MoFE, especially the Climate Change Management Division which hosts the PSU, acknowledges the support of CAFS-Karnali to formulate LAPA 2019 framework. This action is consistent with national development goals, objectives, and priorities, specifically toward building a climate-resilient society, contributing to poverty reduction, and addressing the root cause of food insecurity. The project activities are also consistent with Nepal's 15th development plan (2018/19-2023/24), which aims to reduce community vulnerability by implementing national, provincial, and local adaptation plans.

82. This project contributes and aligns with the National Climate Change Policy 2019 and falls under one of the priority thematic areas related to agriculture and food security, which aims to promote a climate-friendly agriculture system for food security, nutrition, and livelihoods. It contributes to forest, biodiversity, and watershed conservation by planting trees and using forest resources sustainably, water resources and energy by promoting multiple usage of water, rural and urban habitats by building adaptation infrastructure related to drinking water, alternative energy, and community service centre, along with Health, Drinking Water and Sanitation by integrating climate actions in local government planning processes, diversifying livelihoods for resilient income, ensuring ecosystem resilience, and constructing climate adaptation infrastructure. Nepal's 2019 climate change policy required the mobilization of at least 80% of the total funds for implementing programs at the local level. The independent assessment by MoFE in 2021[64]

[63]KPCC (2077). First Periodic Plan (2076/77-2080/81), Karnali Province Government, Province Planning Commission, Karnali, Surkhet.

[64] MoFE. (2021). Assessment of Climate Financing Allocation: Unpacking Eighty Per Cent Allocation to the Local Level. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal.

showed that the project exceeds the targets, allocating nearly 90% locally. In contrast, the share of other contemporary projects, namely NCCSP 2 and BCRWME, was 61.7% and 66%, respectively.

83. The project activities are consistent with the NAP Vision (2021-2050) of building a resilient society and reducing risks of climate change impacts. Its priorities correspond with NAP priority profiles- (1) Promoting Community-Based Adaptation through Integrated Management of Agriculture, Water, Forests, and Biodiversity), and (2) Building and Enhancing Adaptive Capacity for Vulnerable Communities through Promoting Community-based Adaptation through Integrated Management of Agriculture, Water, Forests and Biodiversity)[65]. The project contributes to achieving the 2030 Nationally Determined Contribution target of preparing and implementing climate-resilient and gender-responsive adaptation plans in all LGs. Likewise, the project supported achieving Nepal' s emission reduction target by 2045 through the plantation and promotion of clean energy such as solar and hydropower.

84. Political context and the role of local levels have changed between 2013 and 2018 devolving LGs more decisive authorities and power, but the socio-economic contexts and climate vulnerabilities were similar as discussed in Vulnerability Assessment Report 2021. The SoP incorporated the changed context during the inception phase.

85. **Relevance Rating:** The project objectives remained consistent and valid throughout project implementation with the AF Medium Term Strategy 2018-2022 (amended in 2019), the beneficiaries' needs, and to Nepal's National Climate Development Policy 2019 and the NAP (2021-2025) and WFP CSP (2019-2023). Since no shortcomings were observed in the relevance at project closing, relevance of the project is rated 'highly satisfactory'.

2.2 EFFECTIVENESS

QUESTION 2: To what extent the CAFS-Karnali has achieved the intended outcome(s)? Did the extent of achievement differ among men and women participants?
QUESTION 2.1: To what extent the project achieved all outputs and outcomes satisfactorily?

Findings 5: Despite a lapse of more than 4 years between the date of the project approval and implementation due to unavoidable reasons arising from political, institutional, governance, and technological changes and reforms, and unexpected external environment due to pandemic, the project delivered most of its intended results. The evaluation found that targets for more than 80% of outputs and outcomes, and 100% objectives were fully achieved. The project reported exceptionally high achievements in some targets, mainly on resilient community assets creation, capacity building/awareness raising, empowerment of women including formation/operationalization of women groups and increment in annual HH income.

Findings 6: The project turned out into an opportunity for the women to participate in the enterprises and raise the households' income. The project provided access to 2,084 women in the formal banking system and raised awareness on equal pay between men and women for same nature of works and motivated to take proactive actions to respond to the predicted impacts of climate change. Of the total income-generating ventures (138 agro-forestry enterprises), more than four-fifths (83.5%) engaged women, and more than 63% are managed/ run by women and they have provided self-employment to 6,934 people including 64% women.

86. **Achievement of Outputs**. Assessment of the project performance against the targets based on 11 outputs, revealed project performance satisfactory, with End of Project (EoP) targets achievement for output and outcome targets accounting to over 80%. **Annex XV** shows the details on project output assessment by indicators and targets, which excludes some targets, the activities for which were repurposed in consultation with relevant stakeholders. This section highlights key outstanding output level results that have contributed to the project performance. Table 7 summarises the output level results:

[65] GoN (2022). National Adaptation Plan (NAP) 2021-2050. Government of Nepal.

Table 7: Project Outputs, Targets and Progress

Output Number	Outputs	Remarks (Key visible results)
1.1.1	Train and mobilize officers and community representatives at village and district to design, implement and monitor local adaptation strategies	129 CBOs trained (307%) 76 government officials trained on agricultural drought management practices and 350 community mobilisers.
1.1.2	Local and food security and climate adaptation planning supported	7 Municipal level Local Adaptation Plan of Actions are prepared and endorsed, with participation of all socio-economically marginalized communities in the workshops.
1.1.3	Gender and social inclusion are well integrated into the adaptation planning processes	63 women farmers groups formed (900%) against a target of 7 groups
1.2.1	Local adaptation plans integrated into sector-wise and local level planning process	LGs initiated to incorporate climate risks and adaptative actions in their plans
1.2.2	Integrate climate resilience to planning processes and development projects of key national ministries.	Assisted LGs to design standards for small rural infrastructure
1.2.3	Conduct periodic assessment and document project lessons for dissemination at community, district and national level	Gender Impact Assessment and Lessons Learned Documents Prepared
2.1.1	Provide increased income opportunity for poor households, especially during agricultural lean season, through physical and natural livelihood-related assets	increased income opportunity for poor households, through the creation of 118 physical and natural livelihood-related assets
2.1.2	Increased local availability and access of food and nutrition through better storage and value addition in all target RMs.	Supported the creation of 197 food processing centres, 15 solar dryers-based food processing centres established in 7 LGs
2.1.3	Improved and adapted current crops and livestock management practice	5896 HHs received several training and support
2.1.4	Increased income through livelihood diversification using local resources	No baseline value to compare increase in income
2.1.5	Renewable energy-based systems introduced to support women-led enterprises	Performance of both targets 100 to 125%

87. The Climate Smart Village (CSV) is Nepal's innovative approach to achieving SDG 13 under which GoN is set to establish at least 30 and 170 CSVs by the end of 2022 and 2030, respectively. Aligned with the GoN SDG 13 targets, the project piloted the CSV approach in the project areas by (a) identifying the villages to do CSV interventions, (b) assessing and filling the gap in climate risk and vulnerability analysis (c) designing CSV, and (d) assessing and filling the gap in project's action plan in the CSV compared to the CSV design. It developed a guideline for CSV approach and piloted in eight villages of seven LGs. The project underlines that the six components of the CSV, namely climate smart technologies and practices, climate information services and insurance, farmers' knowledge, climate and agriculture development finance, sub-national plans and policies, local and national public private institutions, synergistically strengthened the resilience.

88. **Local and food security and climate adaptation planning supported.** The project successfully facilitated LGs to prepare LAPA in seven LGs in 2021, aligned with the 2019 LAPA framework. Project beneficiaries, LCPs and former local leaders confirmed that LAPAs were prepared through participatory and consultative processes. The plan mapped climate-vulnerable households and identified adaptation actions aligning with the 2019 climate policy.

89. Since climate change sensitization is one of the critical steps of the LAPA formulation process, the project sensitized nearly 400 LG officials and stakeholders through a series of consultation process. Despite the project design envisaged to follow and improve on guidelines on LAPA preparation already field tested by NCCSP in Karnali districts[66], the LAPA formulation was initiated following the approval of LAPA Framework 2019 due to federalization of the country. According to the Project team, in each seven LG constituencies, LAPA was prepared following six sequential steps prescribed in the framework- (a) creating awareness and capacity building on climate issues (b) climate vulnerability analysis and risk profiling (c) identification of climate adaptation and disaster risk reduction strategies (d) Integrating climate adaptation and disaster risk management in LG periodic and sectoral plans (e) Mainstreaming climate adaptation and disaster risk management in LG annual plan and (f) planning adaptation actions at household, community and user groups.

90. Project provided a high priority to form and mobilize women groups. The project supported the formation of 63 women groups in seven RMs and the project reported 48% female out of 91,686 climate vulnerable people benefitted from capacity building and livelihood diversification related project interventions[67], and 45% were women out of a total of 38,608 persons oriented and sensitized on climate change adaptation and food security, the project reported participation of 33% of women in the planning process.

Local adaptation plans integrated into sector-wise and local level planning process. The indicator and target for this output is that the annual development plans of seven LGs incorporate climate risks and adaptive actions identified in LAPA. Given that each of the seven LGs prepared LAPA in 2021, the evaluation reviewed the annual plan and budget of Nepali FY 2078/79 (2021/22) to assess the extent to which LG plans have prioritized and budgeted for implementing the identified priority adaptive actions. The 2019 LAPA framework elaborated sequential processes for integrating the LAPA priorities in LGs planning processes, accordingly, the former municipal executives and councils approved and endorsed the LAPA, and the LGs published the LAPA as well. However, after the second elections of local levels, new political leaders have been elected in late 2022 by that time project was over, who were not necessarily fully acquainted with the contents and importance of LAPA. As per the general practice of the LGs of not referencing/citing the sectoral plan, policy and strategy in preparation of planning and budgeting document, there is no explicit mention or reference of LAPA in the annual programme of FY 2080/81 (2022/23). Nevertheless, review of 2022/23 annual programmes and activities of the seven LGs reveals that the LGs have initiated to incorporate climate risks and adaptative actions in their plans, but they require further mentoring, guidance, and technical support.

91. Review of the annual plan and interactions with the LGs officials revealed that many activities of the LAPA resemble with the LGs priority activities proposed in the annual plan such as drinking water construction, irrigation canal expansion and disaster risk reduction, e.g., landslide control. The project activities for 2021 and 2022 were also included in the LAPA, hence, they were also reflected in the LG's annual plan and budget of respective years. According to the project team 7 LGs allocated approximately US$ 5 Million in their respective 2022/23 annual programmes, which contributes towards climate adaptation.

> "We must follow the seven steps LG planning guidelines in planning and implementing annual program. While the project oriented (trained) us in LAPA preparation, we could have also benefitted from a more intensive training around the integration with the existing development planning guidelines.
>
> ..... An LG Official

Project's performance regarding knowledge products generation and dissemination is substantial. The project reports showcase manifold achievements against the generation of knowledge products and dissemination of projects results. The project's video documentary has been prepared as a knowledge product which was shared in COP 26 as well to disseminate the locally-led adaptation actions from Nepal. Similarly, the visits of about 20 national and local journalists to the project sites have been reported. It also

[66] CAFS-Karnali Project Proposal (pp 19),
[67] Project Completion Summary Report, CAFS Karnali, June 2023

documented the Good Practices and Learning of the project in 2022[68] based on consultative workshops with the stakeholders.

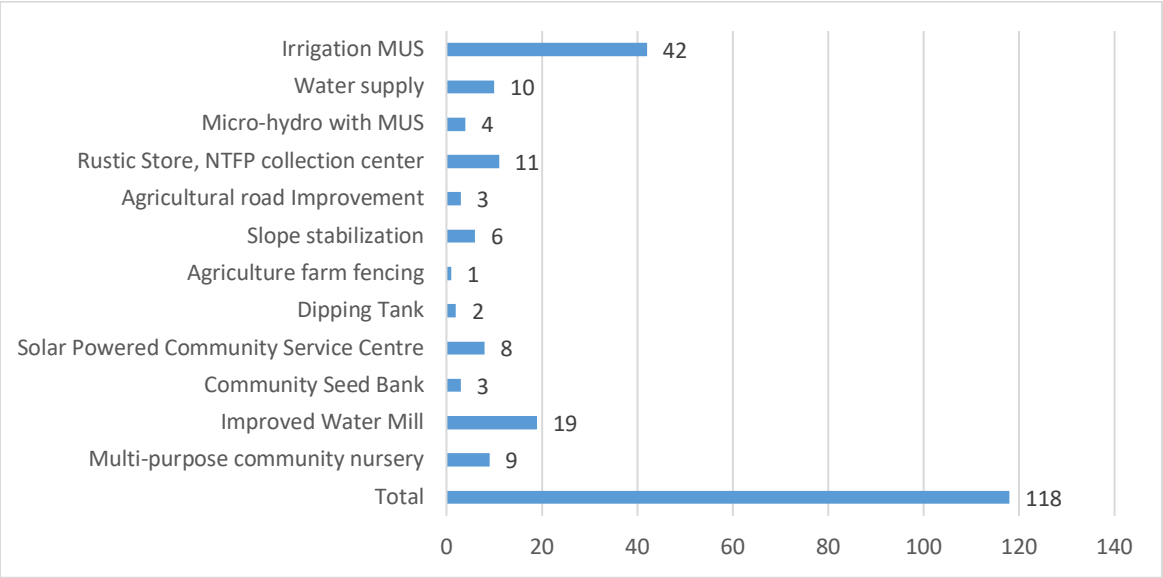
92. As a pilot initiative, the project supported to establish and strengthen the Provincial Climate Change Information Management System (PCCMIS) within climate change section of the Ministry of Industry, Tourism, Forests and Environment (MoITFE) in the Karnali Province. The system is a web-based application accessible openly to public with an internet connection and available in both English and Nepali language. The project also supported LGs to establish the Municipal Agrometeorological Information Centres (MAMICs) to collect, analyse, and disseminate last-mile climate/weather information to the local people in a tailored/easily understandable format, particularly farmers, based on existing/available agroclimatic, weather related information, forecast and advisories from (Agriculture Management and Information System - AMIS, NARC and Department of Hydrology and Meteorology (DHM); and to collect and feed the climate change impact, evidence of climate induced disasters/shocks and other relevant information and adaptation and mitigation initiatives. These systems were installed early 2022 and the technical capacity development training for operationalization of the systems was provided to concerned technical staff of provincial and local governments. The systems operational manuals have also been prepared. However, by the time of the evaluation's field data collection, these systems were yet to become fully functional. As per project's update, a full-time technical expert has been placed in provincial ministry to further guide the provincial and local government staff, provide hands-on support to them, train them and fully operationalize the system within a year and fully hand-over the systems to government's permanent staff.

93. **The Project provided income generating opportunities for poor HHs, especially during agricultural lean season, through physical and natural livelihood-related assets.** As per the budget allocation in the approved Project Document, the total programme budget is USD 8651028, of which 78.70% budget (USD 6,808,694) was planned to be spent in Food Assistance for Assets and training activities (FFA) under component 2 (5 outputs - 2.1.1, 2.1.2, 2.1.3, 2.1.4 and 2.1.5). So, productive and resilience community assets/infrastructures and income generating activities including enterprises were implemented employing the food assistance for assets training modality (cash transfer modality). In addition, many climate-resilient agriculture activities, livelihoods diversification activities, and forest resource management activities were implemented with the mix of food assistance for training, technology transfer, business development service, technical assistance, and material support modality. A total of 29% of the programme budget was spent on infrastructure activities under various outputs for creation of total 118 climate resilient, productive, and protective community assets. The project implemented integrated and multi-layered adaptation interventions & strategies and value-chain support hence all the community assets were linked with production/market linkage, storage, processing/agribusiness, risk-transfer/crop-livestock-insurance, agricultural/livelihoods diversification/increased climate resilient income and policy/plans are in place for the sustainability of the created assets which helped the vulnerable HHs for the regular and diversified source of income. According to the project, the RMs had no sustained programme to build and improve livelihood related assets, hence the project supported for constructing 118 community assets (33 in 2022) (Figure 2). [69]. The areas for community assets were selected in collaboration with the local government under the leadership of the LPCUs. According to the project, most of these community assets are identified by the LAPA, hence support for climate adaptation. These assets have benefitted more than 7,000 poor and climate vulnerable HHs, mainly by creating short-term employment opportunities, increasing income, and agricultural production.

[68] WFP (2022). Good Practices and Learning of Adapting to Climate-Induced Threats to Food Production and Food Security in Karnali Region of Nepal (CAFS-Karnali) Project. World Food Programme, Country Office, Nepal

[69] WFP (2022), Good Practices and Learning of the Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal Project (CCAFS, Karnali). World Food Programme

Figure 2: Details of Community Assets Supported by the Project.



94. Of 118 community assets shown above, nearly 40% was related to MUS technology, followed by improved water mills (19 out of 118). Since LAPA was prepared in 2021/22, according to the LCPs, the projects were identified through the local government planning processes, prioritized, selected, and approved by respective LCPUs. The local communities and LGs appreciated the project activities since these asset building projects created employment and income-generating opportunities for the vulnerable households.

> "We have identified and prioritized many projects following our LGs planning processes. However, our resources would allow us to carry out only a few projects. The CAFS-Karnali complemented our efforts to finance priority development projects, especially irrigation and drinking water facilities. By engaging local communities in construction, these projects created employment opportunities and income".
>
> Ward Chair, Kalikot

95. **Project contributed to reduce food gaps.** The project supported 2509 households on the kitchen gardening for increasing household micro-nutrient intake and dietary diversity, especially on vegetables farming. The evaluation found that at-least one items consumed by households daily in their food type is locally produced (i.e., in the adjoining area, village or district), which were cereals, and/or vegetables/ milk/pulses/fruits/meat depending on the seasons. However, as there is no baseline to this indicator, or a specific target, the evaluation was unable to comment on how the proportion of households consuming 'more' locally available food types changed as compared against the pre-intervention periods.

96. Table 8 below presents households consuming different food products. During the focus group discussions, respondents mentioned that they mostly consumed locally produced cereals, vegetables, meat and milk and dairy products. At-least one of the food items is locally produced. This could be attributed to the support of the project to establish 42 community infrastructures related to the MUS based irrigation canals benefitting more than 2,200 HHs and 4,544 people participating in various types of skill development trainings/ orientations such as kitchen gardening/food processing, support to establish vegetable and livestock farming enterprises etc.

Table 8: Proportion of Households Consuming Different Types of Locally Produced Food (Last seven Days)

Food Group	Everyday	Often (4-6 days)	Rare (1-3 days)	Never (0)
Cereals	100	0	0	0
Legumes/Nuts	77.1	14.9	7.4	
Milk and Other Dairy Products	27.9	3.6	9.4	59.0
Meat, Fish, Eggs	0	0	29.7	70.3
Vegetables And Leaves	52.6	6.7	15.7	25.0
Fruits	4.2	2.5	16.8	76.5
Oil/Ghee/Fats	99.9	0	0	0.1
Sweets/Honey	51.7	5.3	14.3	28.8

Note: All meat/fish/eggs and vegetables are generally produced at the local level, but cereals, legumes and fruits were supplied from the neighboring districts or district head quarter.

97. **Support to improve crop and livestock management practices.** The project assisted target beneficiaries to conduct field trials by themselves and established 89 farmers field schools (FFS) for which 110 lead farmers/local resource persons were trained to facilitate the FFS. According to the PPRs, the project promoted drought resistant agriculture and climate resilient cropping practices and methods among smallholder farmers in rural areas. The project reported that it provided training to 8,081 HHs on different development subjects of agricultural training and of which 52% were women. The PPRs reported 86%, 72% and 43% women participants in postharvest handling and preservation of agricultural products, FFS, and adoption of drought resistant climate resilient cropping practices, respectively.

98. The project provided training to farmers applying farmers' field school (FFS) model to create learning opportunities for farmers, enhance their capacity and to facilitate learning various climate resilience technologies and practices by practical experience in the field. The project reported 1,196 farmers (72% women). According to fourth PPR, the project supported to develop knowledge and skills of 3162 smallholder farmers (43% female) and trained 1196 farmers (72% women) on climate resilient agriculture, revealing that nearly 51% of trained participants were women. The survey results showed that 7.6 of women had received training on climate smart agricultural practices, of which 61.3% reported on practicing of the learned skills during the training.

99. **Project's support to increase income through livelihood diversification using local resources is substantial but results are not visible yet**. The project envisaged to increase Income of the target HHs through livelihood diversification using local resources" by 30% in target areas. However, the baseline did not estimate the income from NTFPs; thus, progress could not be assessed. The project has supported livelihood diversification of vulnerable groups by providing skills development trainings and in-kind /cash grants for establishment of micro-enterprises in rural areas. Under this scheme, 138 (87 led by women - 63%) rural micro-enterprises of 39 different types including NTFP related (such as bamboo work, herbal tea and spices processing, vegetable, fruits, NTFPs and potato processing, sisnoo processing and fresh house) have been established. Total 6,934 people are self-employed including 64% women. The project supported the establishment of nine NTFP-based enterprises involving 643 people, comprising 38% female. Six enterprises were led by women, with 38% female. These enterprises are producing different products like nettle powder, Bamboo handicrafts, herbal tea, etc. for which the locally available NTFP resources are the main raw materials. 6,021 HHs are engaged in commercial fruits farming; 284,354 fruits sapling planted in 255.9 Ha land, survival rate: 90-92%. Total 5,366 people (71% women) participated in around 1,664 Entrepreneurship promotion training/skill development training. The final evaluation found that the households have agro-forestry enterprises and other income sources i.e., wage.

100. The project introduced renewable energy-based systems to support women-led enterprises. The project assisted the construction of 8 community service centres (CSCs) in seven RMs, where the local people could receive services like document photocopy, printing, cyber, legal documents preparations, internet facility, online form fill-up etc. for receiving prompt services from the government service providers

including municipal executive office (MEO) and technical sections under it. Likewise, the project expected CSCs to operate small eatery/tea shops, local product selling outlets, and run and rent out the conference/meeting hall to the government and NGOs. The project expected that these activities would provide an income generating opportunities for the members of the women groups managing the centers and enhance their climate resilience capacity as well. However, at the time of evaluation data collection, CSCs construction had just been completed and handover was yet to begin. The Programme Team (PT) reported that the assets handing over process to the LGs and communities have been completed in February/March 2023. The operational guidelines have been prepared and endorsed by LGs. According to the PT, these infrastructures were rented by the respective MEOs under contractual rent arrangement with the women group receiving management responsibility.

Achievement of Outcomes

101. **Annex XVI** analyses project results (outcomes and objective) by districts comparing the three-survey period (BLS, MTR and FE). Further **Annex XVII** presents endline survey results by disaggregating respondent categories, which includes HH Head (Male and Female), climate vulnerability levels, disability and respondent types (youth, adults and elders). Findings are discussed in the respective outcomes and objectives.

Outcome 1.1: Climate-vulnerable and food insecure poor actively participate in developing climate risk reduction strategies and actions.

Indicator 1: Number and type of climate adaptation strategies identified and implemented.

102. The project targeted to raise the knowledge and skills of 80% of target households to adopt adaptation strategies such as greater and more stable livelihood diversity, increased food storage and consumption, improved soil management, improved water management, post-harvest technologies, resistant crop varieties, knowledge of climate risks and adaptation strategies, responding to early warning and forecasting. Neither the BLS nor the MTR reported on the knowledge and skills of the target households. Earlier, MTR provided a list of 11 climate adaptation strategies identified and implemented by the project (Box 1).

Box 1: Climatic adaptation strategies promoted by the project

1. Expansion and Promotion of improved cooking stoves (ICS)
2. Plantation of different fodder and fruit species along with the medicinal plants.
3. Creation of short-term employment opportunities targeting to the climate change vulnerable HHs through, Asset Building, "Physical and Natural Livelihood Assets" Such as irrigation facilities, MUS, water harvesting tanks
4. Distribution of solar dryers
5. Support to construct/rehabilitate improved/efficient water mills
6. Support on establishment of NTFP building and Seed collection centers, including minimization on post-harvest losses.
7. Support in the establishment and operation of the different Agri enterprises
8. Introduction of **crop and** improved livestock management **practices**
9. Expansion of risk transfer mechanism through introduction of crop and livestock insurances
10. Establishment of municipal agricultural information centers
11. Support on building climatic resiliency through preparation of local adaptation plan.

Source: CAFS-Karnali Annual progress reports, 2019 and 2020, MTR 2021

Outcome 1.2: Strengthened ownership and management of climate risk reduction activities and replication of lessons in key livelihood assets.

Indicator 2: Targeted institutions and community groups have increased capacity to reduce climate change risks in development practice, at local, provincial, and federal levels

103. To assess the progress against outcome 1.2, the project design included one indicator, "targeted institutions and community groups have increased capacity to reduce climate change risks in development practice, at local, provincial and federal levels", with two targets, namely (a) capacity for adaptive action

planning, design, implementation, and monitoring increased (b) 40% of the priority actions remaining by year 3 of project are funded through regular development programme.

104. Although the indicator required increased capacity to reduce climate change risks in development practice, at local, provincial, and federal levels, given the nature of the project and the localization of the project in seven Rural Municipalities (RMs) of the three districts, the project reduced the scope of the project activities to the local level. Going with the project's definition, the FE, going with the MTR's definition, assessed the capacity of the LGs which comprised incumbent elected local leaders such as mayors, chairpersons, and ward chairpersons, and government officials, such as chief executive officers, technical section chiefs (agriculture, livestock, infrastructure, etc.) and community-based organizations such as subject specific user committees, cooperatives and women entrepreneurs supported by the project. However, the difference was in the method of data collection, where MTR collected data remotely (telephone call) and the FE collected in-person. Thus, the FE was more participatory and interactive.

105. As seen from the data and information presented in Table 9, the proportion of respondents reporting increased capacity to address climate change risks in practice is slightly lower in the FE compared to the MTR.

Table 9: Targeting Institutions reporting Increased Capacity to Address Risks

Targeted institutions	MTR		Endline		Remark
	Number of respondents	Response (Capacity increased)	Number of respondents	Response (Capacity increased)	
Local government	12	12 (100%)	23	9 (39.1%)	
Forest user groups	13	12 (92.3%)	0	0	
Local Leaders	14	12 (85.7%)	38	15 (39.5%)	
Women entrepreneurs	12	10 (83.3%)	27	21 (77.8%)	
Cooperatives	5	3 (60%)	0	0	
Overall	**56**	**49 (87.5%)**	**88**	**45 (51.1%)**	

106. The MTR reported a capacity increase of almost 88% of KII participants (49 out of 56) to reduce climate change risks. The lower proportion of targeted institutions reporting increased capacity in FE could be due to combined effect of the following three reasons (a) higher number of respondents in FE (b) all RMs have new leadership and new staff (c) results are derived from in-person interviews which obviously would be lower than remote data collection. The difference on survey methods between mid-term and endline should not be undermined, which further impacted on findings.

107. The second target is 40% of the priority actions remaining by year 3 of project are funded by regular development programmes". The LAPA formulation was one of project outputs. Following the revision of National Framework on LAPA in 2019, the LAPA formulation process was started in 2020 and completed in 2021, in which all the stakeholders were involved actively. Total of 2,500 community people (35% female and 29% marginalized groups) participated during ward-level LAPA planning workshops. Then, LAPA was formally endorsed by municipal executive and councils in 2021. Then, all 7 LGs published the LAPA pursuant to the LAPA Framework[70]. According to the PT, the project's activities for 2021 and 2022 were also included in the LAPA and many adaptation activities were implemented in financial partnership between the project and LGs, as also discussed under relevant outputs section. Nevertheless, LAPAs are endorsed by Municipal Executive Offices (MEOs) and being integrated into the local annual plans. Since the newly elected leader assumed their role just two months before the evaluation conducted the KII with them, they did not have adequate knowledge and idea about the LAPA and future of LGs for LAPA integration.

[70] MoFE (2019), LAPA Framework 2019. Ministry of Forests and Environment, Kathmandu, Nepal

Outcome 2.1 Livelihoods are diversified and strengthened, and livelihood assets and access to food for climate-vulnerable households are improved.

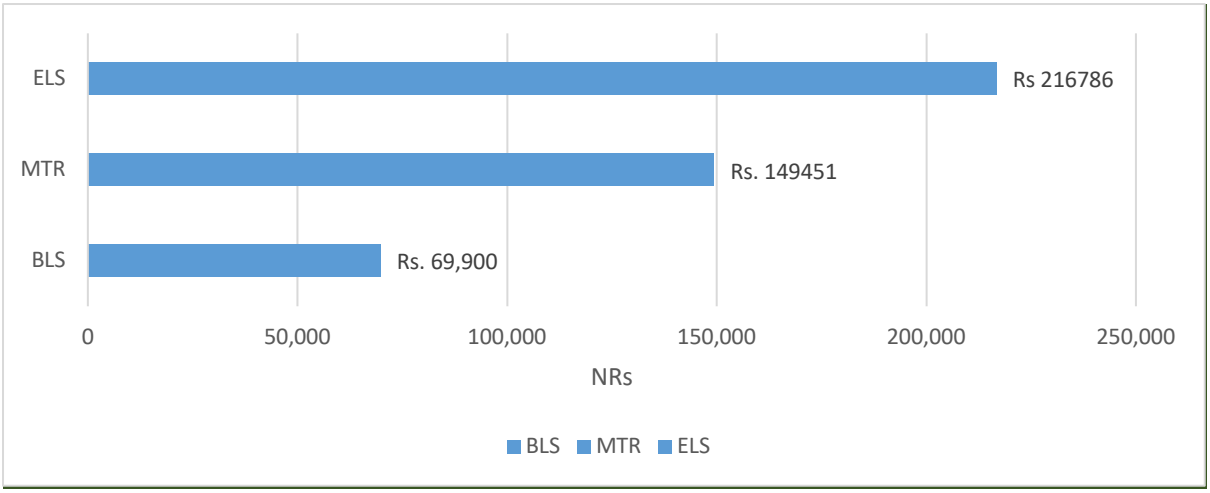
108. The project had three indicators and three targets in outcome 2.1. The three indicators are (a) number of HHs with increased income (b) percentage decrease in negative coping strategies, and (c) number of women led enterprises. The three targets include, (a) target population report food and income availability improved by 40%; >75% of target households report reduction in number and frequency negative coping strategies and >50% of women in target households report increased income through new introduced venture.

Indicator 3: No of HHs with increased income

109. The project reported that 60% of the households have stable and climate resilient income, of which at least 50% are women engaged in income generating ventures. It further reported that the project created 329,245 employment days and transferred US$ 1,723,313 to 7,421 poor and severely food insecure HHs through cash-based transfers (CBT). Of the 7,421 HHs, 36% were women.

110. Figure 3 below shows the average income of the HHs compared between the BLS (2019), MTR (2021) and FE (2022). The baseline survey used household income, a combination of farm and non-farm income from everyone living in a household. The baseline estimated the average annual household income of NRs 69,900, which was increased to Rs, 149,451 per HH despite the COVID-19 pandemic during the MTR, and further increased to NRs 216,786 in the end line (Figure 3)., with statistically significant difference between the BLS and FE[71].

Figure 3: Average Annual Household Income Compared between three Survey Period (BLS, MTR and FE)



111. The sharp increase in income is primarily because of the project support on micro-enterprise operations, skill-oriented training, kitchen gardening support, vegetable farming, and poultry and livestock management training. These created self-employment opportunities at the local level. In addition, the project also created temporary employment/ wage labor opportunities during the construction of physical infrastructure works. Income was high among men headed, and elderly households.

Indicator 4: Percentage decrease in negative coping strategies

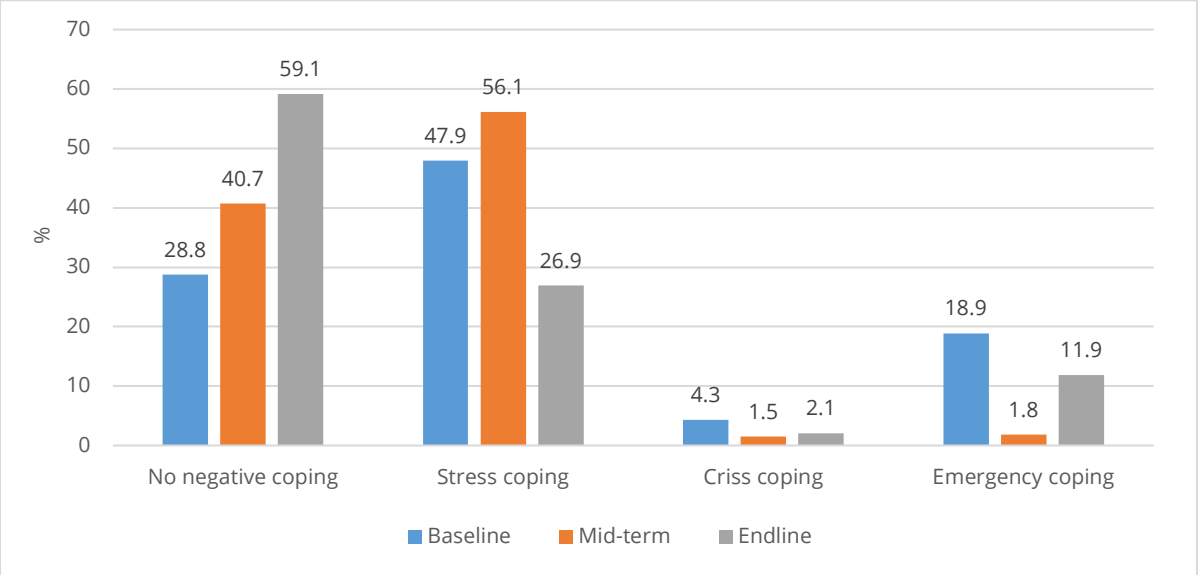
112. The longer-term coping capacity of households is measured based on a livelihood-based coping strategy comprising four stresses, three crisis, and three emergency strategies[72]. The respondents were asked if they had to engage in any of the ten coping strategies due to lack of enough food or money to buy food 30 days before the survey. Based on the livelihood-based coping strategies undertaken, households are grouped into four categories, namely neutral (no negative coping), stress, crisis, and emergency

[71] 1 US$ = NRs 132 (23 Feb 2023)
[72] WFP. (2020). Programme Indicator Compendium revised corporate results framework (2017-2021), World food programme.

strategies[73]. The project's target is,"75% of the target HHs report reduction in number and frequency negative coping strategy.

113. During baseline, 28.8% of households reported no need to adopt negative coping strategies, which MTR estimated at 40.7%, and further increased to 59% at end of the project, (Figure 4) with statistically significant difference between baseline and endline[74]. When HH's coping strategies are disaggregated by district, Mugu (81.3%), exceeded (75%) target and Kalikot (61.5%), while the lowest was reported from Jumla (30%). One of the key reasons for the result in Jumla could be linked to the unusual September 2022 rainfall in Karnali region[75]. Of the three districts, Jumla was highly affected, and the government had declared emergency in Jumla, but not in other two districts, Mugu and Kalikot. Transport services were heavily disturbed in Jumla for several days. Further limitations that should be considered as caveat for findings around coping strategies have been elaborated in the limitations section (page 19, 20).

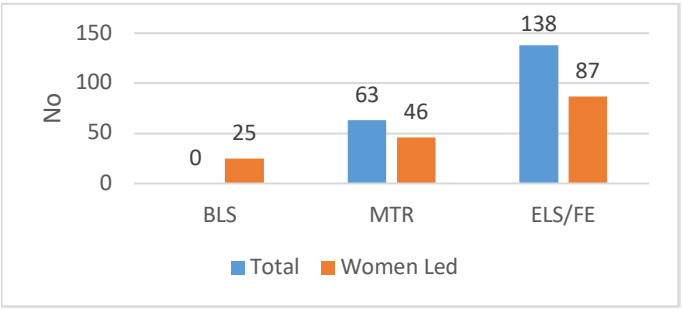
Figure 4: Proportion of Households with Different Coping Strategies



Indicator 5: No of Women-led Enterprises

114. According to the project's fourth PPR, the project supported 138 rural micro-enterprises of 39 different types, such as vegetable, fruits, NTFPs and potato processing, Sisnoo processing, fresh house, herbal tea, and bamboo furniture. Of the total enterprises, 63% (87) are led by women, (Figure 5). Among the enterprises, agriculture-based enterprises ranked first (84.7%), followed by tea

Figure 5: Women Led Enterprises



[73] Households were grouped according to the most extreme strategy they employed. Each strategy is associated with a level of severity (none, stress, crisis or emergency). Stress strategies indicate a reduced ability to deal with future shocks as the result of a current reduction in resources or increase in debts. - Crisis strategies are often associated with the direct reduction of future productivity. - Emergency strategies also affect future productivity but are more difficult to reverse or more dramatic in nature than crisis strategies. Of ten strategies first four were stress strategies, three crisis strategies and three emergency strategies. Households that are using "neutral" strategies or none are in group 1, which means they had not had to apply negative coping strategies. Households are then grouped according to the maximum stress, crisis and emergencies strategies employed (for example, a household that employs 1 stress and one crisis strategies, is classified as "crisis", a household that employs 1 crisis and 1 emergency strategy is classified as "emergency".

[74] H_0: $P_1 = P_2$, H_1: $P_1 < P_2$ (Left tailed test), P =.0000 (neutral coping strategies)

[75] Responses regarding the negative coping strategies are collected over the last 30 days from the date of survey which was carried out in October 2022

shops/grocery (4.7%) and NTFPs collection and trade (4.1%).

115. Of the total income-generating ventures, more than four-fifths (83.5%) engaged women, and women managed nearly half of them (50.7%). The survey data show, overall, a women-led enterprises generated an average annual income of NRs 34,380. During the FGDs, all respondents generating net income confirmed that engagement in income generating ventures contributed to supplementing their household incomes, especially during the lean food periods.

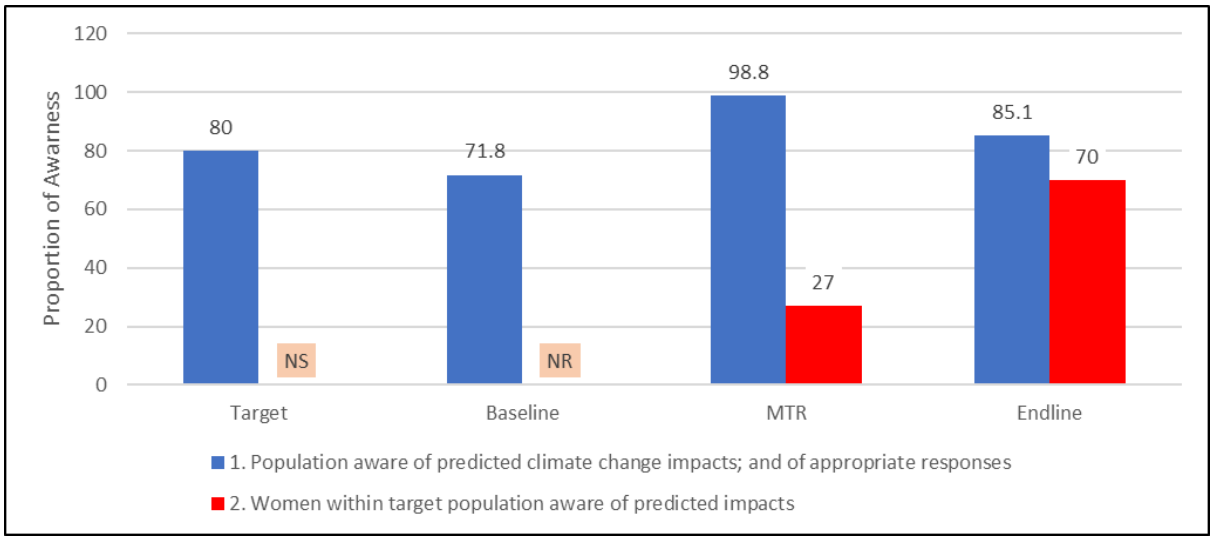
Achievement of Objectives

Objective 1: Strengthened local capacity to identify climate risks and design adaptive strategies.

116. All targets for measuring objective indicators were achieved (Figure 6), mainly due to the high priority on awareness and capacity development measures. The project oriented and sensitized nearly half of the population 38,608 people on climate risks and processes to identify climate risks and adaptive strategies with 45% female. Likewise, nearly 2,500 people (35% female and 29% marginalized) participated in LAPA planning. In addition, dissemination of climate impacts and adaptation measures through hoarding boards and radio jingles further contributed to this. Proportion of women aware of predicted impacts on climate change increased substantially in the endline compared to the MTR.

117. The baseline defined respondents' awareness of the climate change impacts and appropriate responses if they can (a) specify any climatic hazards, such as landslides, floods, and drought, or extreme climatic events, such as erratic rainfall, heat, and cold waves, wind storms, etc.; (b) list impacts of climatic hazards on livelihoods such crop failures, food scarcity, pest and disease problems, migration, etc.; and, (c) mention any interventions or practices for coping and adapting to climatic hazards.

Figure 6: Awareness on Climate Risk and Appropriate Responses



118. The evaluation found 85.1% of the beneficiaries knew the predicted climate impacts and appropriate response against 71.8% in the baseline (Figure 6) with statistically significant differences[76]. This increased awareness is due to awareness programs like radio jingles and local communities' engagement in LAPA preparation processes. Among different categories of the respondents, the evaluation observed that awareness levels varied significantly by caste group (p=0.018) and climatic vulnerability (p=0.005) but remained similar among other categories. Less vulnerable households were more aware of climatic impacts (91.1%) than highly vulnerable households (82.8%)[77]. Further limitations that should be considered as caveat for findings due to difference in the survey methodology, see limitations section (page 19, 20)[78].

[76] H_0: $P_1 = P_2$; H_1: $P_1 < P_2$ (Left tailed test); p *value: 0.000*<0.05,* Significant at 95% CI

[77] HH head (Men, 91.4%, women, 97.1%, p=0.042); Caste (Dalit 99.4%, BCTS 90.2%, p=0.00,); Climate vulnerability (High 95.4%, low 84.2% p=0.00)

[78] Remote data collection technique was followed at mid-term whereas end-term adopted in person interview methods. Likewise, sampling design was completely different between two assessments, hence results should not be compared.

Awareness of women on predicted impacts of climate change

119. More than two-thirds (70%) of women respondents were aware of predicted impacts, with a higher proportion among women headed (82.7%) compared to male-headed households, with statistically significant differences between groups. The project sensitized nearly half (45%) of women on climate adaptation, while one-third (35%) participated in LAPA preparation. In addition, the engagement of women in the construction of community infrastructure and targeting them in enterprise development further contributed to this. Women's engagement in LAPA formulation is one reason for increased awareness of women on predicted climate change.

120. Data in above figure show decrease in the proportion of the population aware of the predicted impacts, and of appropriate responses, but the awarness level of women within the population equal to that of overall population comprosed of men and women. There could be three reasons for the decrease in awareness level between MTR and ELS. Firstly and more importantly, the methods of data collection were different in two surveys , where the probability of reporting high awareness is high in MTR, (2) The endline survey was rigorous in terms of random selection of respondents wherein the respondents were identified and brought to the internet accessible areas by the LCPs, and (3) The proportion of women respondent in MTR was too small, while the Endline has equal number of women respondents.

121. The project sensitized nearly half (45%) of women on climate adaptation, while one-third (35%) of women participated in LAPA preparation. In addition, the engagement of women in the construction of community infrastructure and targeting them in enterprise development further contributed to this.

Objective 2: Diversified livelihoods and strengthened food security for climate vulnerable poor in target areas.

122. All objective-level indicators related to increased climate resilient income and women's engagement in new income-generating ventures were achieved (Table 10). The project created temporary employment, contributing to food security during lean agricultural seasons.

Table 10: Progress against Targets of Objective 2

Indicators	Unit	Targets	Baseline	MTR	Endline	Remark
1. Percentage of target households with stable and climate-resilient sources of income	%	60	31.8	37.5	77.8	Achieved
2. New income avenues created are women-based	%	50	NA	30.5	68	Achieved

Climate resilient income

123. The baseline[79] defined stable and climate-resilient income (CRI) as income earned from sources that are not adversely affected by climate change, such as salary earned in government service or a private company, self-employed (small income-generating ventures such as handicraft making, medium/large scale enterprise, contractor, shop-owner, restaurant owner), skilled labor trader (tailor, barber, etc.), Transport driver/helper, Retired (receiving a pension). Adopting this definition, 77.8% of households had climate-resilient income (Table 10), compared to 31.8% at baseline, with a statistically significant difference[80]. Likewise, households' average income increased almost three times, i.e., from NRs 46,208 to NRs 138,114 at the 2019 constant price[81]. Of the total income, salary (33.1%) was the main contributor, followed by remittance (28.6%) and non-farm wages (20.9%). High youth migration and increasing employment opportunities at the local level is the primary reason for such a massive increment. Outmigration of younger people is a major long-established adaptation strategy to poverty and climate change, and this trend has resumed post-COVID. In terms of project's direct contribution to this impact, nearly three fourth of

[79] NEWERA. (2020). Baseline Survey Report of Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal Project (CCAFS, Karnali), NEWERA

[80] H0: μ = 30.9; H1: μ > 30.9 (Right tailed test); p value: *0.0000>0.05*, Significant at 95% CI

[81] H0: μ = 46208; H1: μ > 46208 (Right tailed test); p value: *0.0000>0.05*, Significant at 95% CI

respondents (77.8%) participated in different infrastructure construction projects and generated an additional income of NRs 14,605 per HH.

124. The project primarily focused on promoting climate-resilient farming practices to improve agricultural production and food security either by (a) diversifying livelihoods that suffer relatively with little impact from changing weather patterns and more extended drought conditions, such as agroforestry, forest-based enterprises, e.g., medicinal, aromatic herbs/non-timber forest products (NTFP) and (b) promoting resilient climate farming by diversifying crops, cultivating, climate-stress/drought tolerant crops species, cultivating fruit crops, by using the irrigation facilities, fruit farming, tunnel farming, etc. Nearly half of the HHs (50.8%) reported to have adopted climate-resilient agriculture practices and generation of a net income of NRs 8,716 per year (excluding agricultural expenses), which is nearly one-fifth (17.1%) of the total farm income (NRs 50,954/year). Nearly half of the climate resilient income (51.7%) comes from annual crops, followed by fruit farming (16.1%), livestock rearing (14.5%), and forest products (10.0%). Expansion of the irrigation facilities, cattle shed improvement, and farm yard manure use are the main drivers for increasing climate-resilient farm income. This can be considered an incremental benefit and attributable to the project.

125. The project set a target that at least 60% of households have greater livelihood security compared to the baseline. The survey computed the proportion of households exceeding average climate-resilient income compared to BLS at the 2019 constant price of NRs 54,063.4 in 2022. More than two third (68.5%) had higher income compared to the baseline, thus exceeding the project target.

Women engaged in new income-generating ventures.

126. The project established 138 rural micro-enterprises, of which nearly two third (63.5%) are women-led (87 in total). Furthermore, the project created self-employment for 6,934 people, including 64% of women[82]. The survey found that nearly one-tenth (11.8%) have initiated new income-generating ventures over the last three years. While there has been a slight increase in women engaged in IGVs from the baseline (10.1%), the increment is not statistically significant[83]. Of the 85 income-generating ventures, most are involved in livestock (45.9%) and vegetable farming (38.8%). The remaining is in service-oriented businesses, such as tea stall operations (9.4%). Of the total income-generating venture, more than four-fifths (83.5%) engage women, and women manage nearly half of them (50.7%). An enterprise generated a profit of NRs 34,380 per year, including own family labor.

127. Most of the agriculture and livestock-related activities initiated through project's support are operational, a particular case of impact that can be attributed to the project. Nevertheless, limited market access was found to be hindering the operation and growth of such enterprises. Similarly, as project's engagement was with high vulnerable poor households with investment limitations, most of the income-generating ventures are small-scale. During field observation, a number of respondents raised concerns over the limited market avialiability for the products and high labor requirements, which increased the cost of production.

Objective 3: Increased resilience of natural systems that support livelihoods to climate change-induced stresses.

128. Of the five indicators for measuring progress, the targets for all indicators were achieved (Table 11). However, some indicators' baseline status was already higher than the target, especially on drinking water and households accessing forest products. Despite this, there are improvements compared to the baseline situation. The project contributed to building the resilience of natural systems through sustainable use and management of these resources while simultaneously addressing the household problems of climatic stresses, such as water storage, promoting water use, and planting trees on forests and farmland.

129. The evaluation adopted environmental benefit indicators (EBI) to measure the proportion of households and women perceiving an environmental benefit from rehabilitated or constructed assets. The benefits are assessed through a set of three questions corresponding to the different types of outcomes that can be expected from asset-creation activities related to improved agricultural potential due to greater water availability and soil fertility (e.g., increased or diversified production not requiring expanded irrigation); an improved natural environment due to land stabilization and restoration (e.g., more natural

[82] WFP (2023). Annual Project Performance Report, 2022. World Food Programme, Nepal

[83] H_0: $P_1 = P_2$; H_1: $P_1 < P_2$ (Left tailed test); P-Value: 0.160>0.05, Not significant at 95% CI

vegetal cover, increase in indigenous flora/fauna, less erosion or siltation of field, etc.); improved environmental surroundings due to enhanced water and sanitation measures (i.e., greater availability/more prolonged duration of water for domestic non-human consumption). The EBI score is calculated in percentage as an unweighted average of the responses obtained to the above three questions[84].

130. Based on the above method, the overall EBI scores of target HHs and women are estimated at 56.9% and 59.0%, respectively, slightly higher than the project target of 50% (Table 19). This is due to the construction of irrigation facilities, support on plantation and restoration activities, including land stabilization, and construction of drinking water facilities (cf para 90).

131. Male-headed households (58.0%) had higher EBI scores than female-headed households (46.0%), with statistically significant differences between groups. Though less climate-vulnerable households (57.2%) had higher EBI scores than highly vulnerable households (56.9%), the difference was not statistically significant, revealing that the extent of benefits does not vary between groups.

Table 11: Progress against Targets of Objective 3

Indicators	Definition	Unit	Target	Baseline	MTR	Endline	Remark
Nature assets maintained and improved	Target households report better and greater access to natural resources	%	50	Not available	NA	56.9	Achieved
	Women surveyed report better access natural resources	%	50	Not available	NA	59.0	Achieved

Access to natural resources.

132. The project reported four different indicators for measuring progress under objective three, which is related to access to water for agriculture and drinking; engagement in community multi-use water systems (MUS) technology, accessing forest quality and improvement on soil cover. Data presented in Table 12 show substantial difference on the proportion of HHs reporting access to MUS technologies in BLS (3.2%), MTR (11.3%) and 54.9% in endline. The project report that revealed overall, the project supported 42 MUS- based irrigation canals during the project duration, with 9 MUS in 2022 only.

133. **Water for agriculture (Irrigation)**: The project prioritized increasing farmers' access to irrigation through asset-creation activities such as rainwater harvesting ponds, irrigation canals, and MUS. The project constructed 42 community infrastructures related to irrigation, benefitting 2,200 HHs and increasing water availability in 960 ha of agricultural land. As a result, the proportion of HHs having access to water for agriculture reached 87.8% against 36.1% at baseline (Table 12), with statistically significant differences after project implementation[85]. Of those households having access to irrigation, nearly one-third reported increased water availability (39.0%), followed by year-round availability (38.5%) and increased quantity of water distribution (34.4%). Likewise, 23.8% of households reported decreased water disputes/ conflicts.

134. The extent of access of low and high climatically vulnerable HHs to irrigation water is almost similar, with a slightly higher among low climatically vulnerable households (90.1%) vis-à-vis highly vulnerable households (86.9%). The difference is not statistically significant. LG representatives and community leaders appreciated the project's support for increasing people's access to water for agriculture.

[84] WFP. (2020). Programme Indicator Compendium revised corporate results framework (2017-2021), World food programme.

[85] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .000<0.05, Significant at 95% CI

Table 12: Progress against Indicators of Objective 3

Indicators	Unit	Targets	Baseline	MTR	Endline	Remark
HHs reporting improved availability of water for drinking	%	Not available	97.4	96.1	99.2	Achieved
HHs reporting improved availability of water for agriculture	%	Not available	36.1	85.3	87.8	Achieved
HHs having access to MUS technologies	%	Not available	3.2	11.3	54.9	Achieved
HHs using forest products (litter)/preparing litter for soil quality	%	Not available	62.8	93.8	97.2	Achieved
HHs reporting on improvement of forest cover	%	Not available	40.2	37.3	50.3	Achieved

Access to water for agriculture and drinking

135. Improved drinking water included piped water into a dwelling; piped to yard/plot; public tap/standpipe; stone tap; tube well or borehole; protected well; protected spring; rainwater; tanker truck; bottled water. Piped water is one of the safe drinking water sources. The project supported constructing 777 drinking water taps, improving access to safe drinking water for 775 HHs. As a result, the households with access to drinking water reached 99.2% from 97.4% at baseline, with statistically significant differences between the two periods (Table 19)[86]. Hence, access to drinking water has improved after project implementation. A large majority of HHs with access to drinking water reported increase in year-round availability (97.1%), with a decrease in water collection time (71.0%). The majority perceived that water quality (69.4%) and water supply (74.6%) have improved

136. High climate-vulnerable households (99.4%) had more access to improved drinking water than less vulnerable households (98.5%), with statistically significant differences between the groups. This could be linked to the affirmative actions of the project to benefit vulnerable groups.

Access to forest products

137. The baseline survey reported 62.8% of households collected leaf litter, which, at the end of the project period, reached 97.2%, especially for using in farm yard manure. The increment is statistically significant, revealing that extent of leaf litter use has increased after project implementation.[87] In this regard, the influence of the external environment seems high. Karnali government promotes organic agriculture and prohibits the selling of chemical fertilizers. As a result, farmers have no option but to collect leaf litter from forests if they need farm yard manure, and practice organic farming. However, the preparation of compost from leaf litter is non-existent. Dalit, low climate vulnerable, and women-headed households reported collecting more litter than their peers. But the difference is not statistically significant among high and less climate-vulnerable households.

Status of forest resources

138. The forest resource improvement does not become visible in a short period of 3 to 4 years. Hence, the evaluation assessed the status of forest cover resources based on household perception, where they were asked whether the forest cover had improved in the last three years. Half of the respondents perceived that forest cover had improved (51.1%). The improvement was accredited to the plantation of fruit and non-timber trees in the farmland and community forests. A relatively higher proportion of less

[86] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .0047<0.05, Significant at 95% CI
[87] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .000<0.05, Significant at 95% CI

vulnerable households (61.4%) perceived improvement in forest cover compared to highly vulnerable households (45.8%, with statistically significant differences between groups[88].

Multi-use systems (MUS) technology

139. MUS uses a scarce water source for multiple purposes, i.e., irrigation, drinking water, improved water mills, micro-hydro, kitchen garden, and small farms with drip/ sprinkles. The proportion of households with access to MUS increased from 3.2% at baseline to 54.9% at the endline. The project significantly contributed to improving access to MUS technology while exceeding targets.[89] Of those HHs having access to MUS, nearly one-third used tap water (34.3%), followed by kitchen wastewater (18.5%) and use of water from water mills (13.2%).

140. High climate vulnerable households benefited more from MUS (58.1%) compared to less vulnerable households (46.5%), with significant differences between groups[90]. After the construction of MUS, farmers have started cultivating seasonal and off-seasonal vegetables, thereby increasing household production.

> *"The project constructed drinking water facilities and supported kitchen gardening. I have begun to grow vegetables utilizing wastewater. This has increased the availability of nutritious products for my family member and provided an opportunity to earn something by selling surplus vegetables.*
>
> *A female farmer from Jumla*
>
> *"With the construction of the MUS, we can now cultivate crops timely. Earlier, we had to rely on rain; however, we can now get water when required. I am cultivating crops on time, and production has increased".*
>
> *A male farmer from Kalikot*

Factors that contributed to achievements of project results

141. The evaluation found objective level targets fully achieved (11 out of 11), 66% at the outcome level (4 out of 6) and more than 80% targets achieved at the outputs level. A review of the Project Proposal, BLS report, MTR, PPRs and discussions with the project team, LCPs, local leaders and other key stakeholders, including beneficiaries revealed the following reasons:

(a) **Project assumptions are valid**. The project's assumptions at objective and outcome levels hold true. Most importantly, the project showed that community development priorities government and adaptation priorities are easily combined to one plan. Likewise, all sections of the community have participated in identifying and designing risk reduction strategy and the government provided its fullest cooperation to the tasks, agreeing on the On-Budget, Off treasury (OBOfT) funding mechanism, which contributed to garnering a high level of support and cooperation from the LGs and targeted HHs timely because of in-built flexibility, accountability and transparency in fund management, allowing the project to address local level requests timely and appropriately.

(b) **Project activities were focused at the local level**. A recent study by MoFE revealed that the project allocated more than 90% of the budget for the implementation of climate adaptation activities (76.6%) and capacity building activities (14.16 per cent) at the local level.

(c) **Effect of exceeding progress vis-à-vis targets**. As stated earlier, the project's design allocated 29% of the total budget on infrastructure support for local governments allowed the project to undertake a 'no-regret approach' in supporting the local governments to develop climate resilient infrastructure, whereby the achievement against target set in results framework significantly

[88] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .000<0.05, Significant at 95% CI
[89] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .000<0.05, Significant at 95% CI
[90] H_0: $P_1 = P_2$ H_1: $P_1 < P_2$ (Left tailed test), P = 0.000, P-Value: 0. .005<0.05, Significant at 95% CI

multiplied[91]. This contributed to the achievement of objectives although some activities planned at the output level were dropped given the changed circumstances or based on the requests from government. Some of the activities for which the project reported progress more than 200% of the targets include, formation of women groups (900%), case studies generated (740%), creation of community assets (562%). organize media field tours (500%), number of CBOs/User Group trained (307%), community workshops (253%), and community exchange visits (210%).

(d) **Limited effect of the adjusted output targets**. The PT confirmed that some initially planned activities that were either beyond the capacity of the project, would not have had a major impact on outcomes and objectives, were adjusted in the course of project implementation through consultations among government counterparts, EA's project manager and the national project director. As these changes were not documented in the log frame, the project's overall outputs were slightly skewed, despite a good performance overall. However, with evident correlation between implemented activities and higher level results, the activities that were adjusted had no or minimal effect on the achievement of outcomes and objectives.

(e) **Objective level targets not redefined based on Baseline Survey Report 2020.** In 2013, the project design estimated the percentage of the target population aware of predicted climate change impacts; and of appropriate responses at 5%. The situation had changed by 2020, when the baseline study of the project reported more than 70% of the target population aware of predicted climate change impacts and appropriate responses. Based on the results from the baseline, either the target should have been revised, or the definition of the indicator/ target providing a clear guidance on how the value should be calculated to report this indicator.

QUESTION 2.2: TO WHAT EXTENT THE LCP HAVE REGULARLY RECORDED AND ACTED ON INTENDED AND UN-INTENDED CONSEQUENCES ON PROJECT BENEFICIARIES, INCLUDING WOMEN AND CLIMATE VULNERABLE HOUSEHOLDS?

142. **Sustainable relationships with the LGs**. The project mainly worked with three local cooperating partners (LCPs) in the three districts, HURENDEC in Kalikot, PACE in Jumla, and RCDC in Mugu, with annual renewable field level agreement (FLAs) signed between the concerned partner and the WFP. Reviews of LCP's annual project completion reports based on FLAs and interactions with all three LCPs revealed that they have done their best to undertake project activities timely, transparently, and effectively as much as they can do. The evaluation could observe no major weaknesses on their parts. Given LGs' high expectations, specially formed after more than 2 decades, with new mandates, authorities and powers enshrined in the Constitution and enactment of LGOA 2017, to a greater extent, the evaluation assesses a high performance of LCPs. The LCPs were fully aware that weak relationship and unresponsive behavior to LGs (unintended consequences) could obstruct project activities and delivery of effective and timely services to the climate vulnerable peoples/ project beneficiaries (intended consequence). LCP's good relationship and responsiveness to LGs contributed to achieve the project's objectives.

143. **Working in COVID-19 pandemic situation**. LCPs managed to work in the long COVID-19 pandemic situation and complete lockdown conditions, with due support of the LGs, applying all health related protocols. This provided not only short-term employment opportunities and address food security during the COVID-time, but also make people learn the importance of frequent hand washing and using masks.

[91] No regret approach refers to adaptive measures whose socioeconomic benefits exceed their costs whatever the extent of future climate change (MoALD, 2019. Integrating Climate Change Adaptation into Agriculture Sector Planning of Nepal: A Handbook. Ministry of Agriculture and Livestock Development, UNDP and FAO)

144. The construction of several community assets focusing on climate adaptation in the LGs during the COVID-19 pandemic became a gift for the food-insecure poor people who had returned home from India and cities in Nepal because of the COVID lockdown. In-migrants got an opportunity to work at home and earn wages to save their lives and sustain their families. Some infrastructures/ assets were built in the villages during the pandemic period, following health protocols in lockdown situations when people's mobility was restricted.

> *"I had no option other than to return home when the Indian government imposed a lockdown due to COVID-19. I walked for around 15 days to reach home and spent all my savings during the travel. I was worried about feeding my family. However, I found a drinking water scheme under construction through the project in my village, where I could work as a laborer. The project was a "god gift" to my family."*
>
> *A returnee from India*

145. The LGs allowed to construct and undertake activities in the villages, complying with the health protocols inside the villages. The people's awareness of health protocols and the need for health and sanitation services increased, resulting in an increased frequency of hand washing. Many people in project areas are habituated to washing hands frequently because of changes in human behaviour. This is an example of an unintended positive impact.

146. **Effectiveness Rating:** Guided by the need to generate learnings, evidence, and the ToR for the evaluation, this evaluation assessed the project's effectiveness collectively based on the extent to which the CAFS-Karnali achieved outputs, outcomes and objectives. However, the evaluation did not account for those targets in the effectiveness rating, which the project considered irrelevant.

147. Taking into account full achievement of all targets in objective and achivements of majority of outcome and outputs targets (see para 147-153), the evaluation rated effectiveness of the project satisfactory. As highlighted above, the shortcomings were mostly related to result based managment approaches. The project had exceeded achivements of many targets, and delivered results during the pandemic.

148. The project also suffered from the poor result framework. The indicators were poorly defined and mismatch between targets and indicators were observed. However, the project did not periodically revise the result framework, especially after the baseline and mid-line. The revision of some output level targets with addition of new targets, if necessary, could have made the project further effective and benefit to the targeted population. Likewise, some of the targets could not be assessed due to lack of baseline information or changes in the external environment.

149. The evaluation also acknowledges the challenging operating environment to the project, while assessing the effectiveness. Due to the spread of the COVID pandemic, the country went into lockdown and imposed travel restrictions, which influenced the project implementation, especially on monitoring and quality control. In addition, the country had two local and federal elections in 2022, where the election code of conduct imposed many restrictions. Considering the changes in operating environment, and directly responding to the livelihoods during the pandemic situation, the project effort should not be underestimated.

2.3 EFFICIENCY

QUESTION 3: TO WHAT EXTENT WERE THE PROJECT'S OBJECTIVES AND COMPONENTS CLEAR, PRACTICAL, AND FEASIBLE WITHIN ITS TIME FRAME?

Finding 7: The project was completed timely, with financial delivery of 99.8 % (except the final evaluation and audit related expenditure) and a low management cost, with more than 90% of funds spent at the local level. Having worked with limited human resources and partnered with the local NGOs, the project results were substantially achieved at low management costs. The costs involved in achieving project results were reasonable, economically viable, and ensured the access of the most (vulnerable HHs category III and IV) to the funds allocated towards community assets building.

Finding 8: An ex-post analysis estimated the benefit-cost ratio (BCR) greater than 1 with a positive net present value confirming that the benefits accrued due to the project is higher than costs and investment is worthwhile, in spite of the fact that the implementation encountered several external

unforeseen challenges such as the spread of global COVID-19 pandemic, local/provincial/national elections, change of LPCU chairs and officials after the election, frequent changes and transfer of NPSC chairs/project managers, and unusual heavy rainfalls, floods and landslides in September 2022.

150. **Number of beneficiaries reached by the project is 34.7% higher than the target**. Although the country was severely hit by the COVID-19 pandemic and the imposition of a complete lockdown for nearly eight months during the project's life, travel restrictions, and mass gathering, the project reached 88,629 people through different capacity building and livelihood diversification, exceeding the target by 34.7% with the same resources. More importantly, it sensitized 38,608 people (45% women) on climate adaptation, nearly half of the population. The project was completed timely, with financial delivery of 99% and a low management cost, with more than 90% of funds spent at the local level.

151. **All objectives and 80% outcomes achieved within the project duration**. The project was completed timely despite the frequent transfer of key government officials, three elections in the project's final year, and the spread of the COVID-19 pandemic in the 2nd year of the project, which is supposed to be a critical working period. The evaluation confirmed that the project objectives and components were clear, practical, and feasible within its time frame. However, for the sustainable management, operation and utilization of the project-supported large number of infrastructures and enterprises , the local governments and communities should have a plan and thr required investment for timely repair and maintainance.

QUESTION 3.1. HOW COST-EFFECTIVELY THE PROJECT SPENT FUNDS ALLOCATED TO THE DIFFERENT COMPONENTS OF THE PROJECTS TO CONVERT INTO RESULTS, IN LINE WITH THE TIMELINES PRIOR PLANNED AND AGREED?

152. The evaluation assessed the project's expenditure based on the review of the financial data reported in the PPR reports (2019, 2020, 2021, and 2022). Although the country was severely hit by the COVID-19 pandemic and the imposition of a complete lockdown for nearly eight months during the project's life, travel restrictions, and mass gathering, the EA (MoFE) highly appreciated the WFP for completing the project in time.

> "This is the first project in Nepal, which was completed timely. For many projects, we have extended the project period at the beneficiary's cost, even in normal period. Despite the difficult situation, the project has set "exemplary evidence" in Nepal that a project can be completed timely when committed".
>
> A senior government official, MoFE

153. The project followed an "on budget and off treasury mechanism" where the budget is reflected on the government's budgeting system, with direct expense from WFP. The total AF grant was USD 9,527,157. According to the Project Completion Summary Report (PSR), the project spent 99.8% of the total planned expenditure as of the project period (US$ 9,509,455 against the total budget of US$ 9,527,157) (Table 13), as of 20 April 2023 excluding US$17,631 final evaluation and Audit related expenditure.

154. The project expenditure was low in 2019 and 2020 and high vis-a- vis budget allocation in 2021 and 2022. In 2019, the project spent less because of the preparatory activities such as vulnerability assessment, baseline survey, and establishment of the offices carried out, and the impact of COVID-19 was high in 2020. On the other, expenditures were high in 2021 and 2022 because of the need to settle earlier commitments made in 2020 and 2021 though implementation was delayed for several reasons, and often beyond the control of the project. This justifies high expenditures in 2021 and 2022 vis-à-vis budget allocation. Because of the flexibility in the "on-budget off-treasury" funding mechanism, the project could spend with no budgetary implications, despite local, provincial, and federal elections in May and November 2022

155. The data shows that the project has exhausted total budget by components and spent according to the allocation.

156. Of the total budget of US$ 9.527 million from AF, the project spent US$ 9.509 million, with financial delivery of 99.8% (Table 13). As seen, the project consumed 100% of the planned budget in both component 1 and component 2 and the budget (allocation) is consistent with the expenditures (**See Annex XVIII**). This has been possible due to the "on budget, off treasury", fund flow mechanism under which the WFP receives funds from the AF directly and the WFP transfers to local level implementing partners and communities, with reflection in the national budget via MoFE, as an executing agency[92]. In terms of results specified in the project log frame, while the extent of achievement in some output level targets was substantially high, a few targets were partially achieved, while few were dropped as some activities were deemed irrelevant owing to changed context and through consultations with government counterparts. However, as such changes in the programme design were not reflected in the logframe.

Table 13: Planned and Actual Expenditure

Unit: US$

Year	Planned Expenditure	Actual Expenditure	Percent
2019	2,005,462	1,234,938	61.6
2020	2,390,233	1,561,494	65.3
2021	3,200,000	2,604,557	81.4
2022	1,931,462	4,108,465	212.7
Total	9,527,157	9,509,454	99.8

Source: PPRs and Project Completion Summary (2023)

Project Budget-Expenditure by Project Year and Component[93]

Component	Total Budget (USD)	Expenditure (USD)				Total	Percent
		2019	2020	2021	2022		
Component 1 (Outcome 1.1&1.2)	1,349,440	98,076	61,719	272,347	917,294	1,349,436	100.00
Component 2 (Outcome 2.1)	7,301,585	1,096,511	1,339,459	2,332,210	2,533,402	7,301,581	100.00
Project Execution Cost	129,765	40,351	55,580	-	16,202	112,133	86.4
Project Cycle Management Fee	746,367		104,736	-	641,567	746,303	99.9
TOTAL	9,527,157	1,234,938	1,561,494	2,604,557	4,108,465	9,509,454	99.8

157. Of the total expenditure, more than 92.2% was spent on project execution, with 7.8% on implementation support[94]. The implementation support cost of the project is low compared to another similar project being operated in Nepal. For example, the implementation support cost was 38.7% for the Nepal Climate Change Support Project (NCCSP) Phase 2 (2019-2023), with a technical assistance cost of 18.3%[95]. Similarly, the Building Climate Resilience of Watersheds in Mountain Eco-Regions (BCRWME) project (2011 – 2020) implementation cost was 34.3 of the total budgets, with technical assistance of 15.4%[96].

158. The factors contributing to achieving a high financial delivery include (a) financing the local government's priority programs selected by LPCU, which was later endorsed through the local level planning processes; (b) mobilization of the LCPs in implementing the project activities, which is cost-effective and delivered services timely at competitive costs, and (c) WFP's centralized procurement system which ensures timely availability of the construction materials at construction sites. This saved not only time but also ensured quality. Furthermore, WFP mobilized its human resources from the country office to

[92] MoFE (2021), Assessment of Climate Financing Allocation: Unpacking Eighty Per Cent Allocation to the Local Level, Ministry of Forests and Environment.
[93] The evaluation and audit-related expenditure of USD 17631 is under commitment which is yet to be reported as expenditure.
[94] This does not include WFP management cost US$ 0.75 million
[95] MoFE. (2021). Assessment of Climate Financing Allocation: Unpacking Eighty Per Cent Allocation to the Local Level. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal
[96] ibid

deliver some of the project activities, e.g., livelihoods, gender and social inclusion, and financial management, contributing to its success. With one full-time project coordinator and three field coordinators (one per district), the financial delivery is substantial, considering the geographic location and rapidly changing external environment due to factors such as the COVID pandemic, seasonality issues, and elections.

159. **Financial Cost Benefit Analysis**. Financial cost benefit analysis (CBA) was carried out to compare the benefits against the costs of a given project[97]. Financial economic analysis such as benefit cost ratio (BCR), internal rate of return (IRR) and Net present value (NPV) were not estimated. The evaluation conducted cost and benefit analysis to understand the financial efficiency of the project. The cost includes costs of planning, preparing for, facilitating, and implementing adaptation measures, including transition costs," and benefits as "the avoided damage costs or the accrued benefits following the adoption and implementation of adaptation measures[98]. Primarily, the project worked to improve the households' food security and invested in asset building, followed by capacity building and climate awareness. Hence, evaluation considered income realized through different adaptation actions contributing to resiliency building through sustainable management of land and water resources, soil conservation, and community infrastructure protection. The economic life is considered 15 years[99] . Only incremental costs and benefits arising from the interventions were considered, where market prices were used. The discount rate for the cost and benefits was taken at 10%[100]. The increase in beneficiaries is based on Karnali province's annual population growth rate of 0.05%[101].

160. The evaluation considered net incremental income from adaptation actions as benefits of US$ 67.5[102] excluding farming cost), along with the additional income of US$ 31.8 from income-generating ventures. In addition, the project also generated temporary wage employment, which is also accounted for as a benefit. The evaluation further observed that 41% of households were adopting at least one of the climate adaptation interventions promoted by the project. Among households with adaptation actions, the average annual net income comprising both farm and non-farm was US$1,791.9, whereas that for households without adaptation actions was US$1,636.7. Thus, the additional income of households adopting climate actions was US$ 155.2 per year. The evaluation estimated the net present value of benefits under two scenarios (a) average annual net incremental benefits from farm income and (b) differential income of HHs adopting climate action, comprising both farm and non-farm income.

161. The cost of adaptation measures included annual expenditure from the project, the operation and maintenance cost of adaptation infrastructure, and the opportunity cost of participation. Generally, 1 to 3% of the total infrastructure development cost would be required for maintenance, especially irrigation schemes. During FGDs, the respondents informed that operation and maintenance ranges between 2 to 5% with a median value of 3% after three years of completion.[103] Likewise, the community participates for around 30 minutes to two hours every month in community meetings, with a median value of 1 hour, an attendance rate of 60 to 80% of total members, and a median value of 70%. Hence, the evaluation used the median value to estimate associated costs.

[97] Chadburn, O., Anderson, C., Cabot Venton, C., & Selby, S. (2013). Applying cost benefit analysis at a community level: a review of its use for community-based climate and disaster risk management.
[98] UNFCCC. (2011). Assessing the costs and benefits of adaptation options: an overview of approaches. *The Nairobi work Programme on impacts, vulnerability and adaptation to climate change*, 52.
[99] PEA. 2021. The United Nations Environment A Cost Benefit Analysis of Climate Adaptation Options Supported by the ADAPT PLAN Project. The Poverty-Environment Action for the Sustainable Development Goals (PEA), The United Nations Development Programme and The United Nations Environment July 2021
[100] Basnyat, B. (2020). Commodifying the community forestry: a case from scientific forestry practices in Western Hills of Nepal. *Journal of Forest Research*, *25*(2), 69-75.
[101] CBS.2021. National Population Census, 2021, Preliminary Results. Central Bureau of Statistics, Nepal
[102] The average conversion rate of 1 US$ for 2022 was NRs 127.5
[103] Chadburn, O., Anderson, C., Cabot Venton, C., & Selby, S. (2013). Applying cost benefit analysis at a community level: a review of its use for community-based climate and disaster risk management

162. As stated above, table 14 compares the financial efficiency of the project under two scenarios of climate adaptation with farm income only and total income. The table reveals that the benefit-cost ratio of climate adaptation interventions with farm income is 1.08, whereas the total income is 1.48. Similarly, the internal rate of return was 12.0% and 20.8% for farm and total income, respectively. A BCR greater than one along with positive net present value indicates that the project is worth investing from the financial perspective. Obviously, the economic return of the would-be further higher since this analysis has not taken into other non-tangible benefits from the adaptation measures, which could not be assessed. This income resembles other climate adaptation projects in Nepal where the BCR ranged from 1.27 to 1.50 discount rate of 10 %[104] . Likewise, Malawi's climate adaptation project resulted in a BCR between 0.37 and 1.71 at a 6% discount, which is relatively higher in Nepal than Malawi.

Table 14: Financial analysis of the project

Million US$

Parameters	Scenario I (Farm income only)	Scenario II (Total income)
Benefit cost ratio (BCR)	1.08	1.47
Present value of benefits@10%	8.7	12.0
Present value of cost @10%	8.1	8.1
Net Present Value (NP @ 10%	0.6	3.8
Internal rate of return	12.0%	20.9%

QUESTIONS 3.2. HOW FAR PARTNERSHIP ARRANGEMENTS AND CLARITY OF ROLE AND RESPONSIBILITIES AMONG PARTNERS CONTRIBUTED TO THE PROJECT OBJECTIVES/OUTCOMES?

163. The FLA s signed with the LCPs ensured that project activities are prioritized and reflected in the annual work plan following the agreed planning process at the local level. On the other, LGs are supposed to comply with the LGOA 2017, and they have the power to enact legislations effective in their jurisdictions, complying with GoN and the Province Government legislations, working procedures and directives.

164. All LGs in the project area were found strongly connected with the project through the Standard Operating Procedures approved by the Government of Nepal in May 2018, and well informed during the inception workshops and coordination meetings. The LPCU formed in each LGs provided a working platform and opportunity for the LCPs to work with the LGs, despite the SOP did not define the composition of LPCUs, and that there was no agreement between EA (MoFE) and LGs to support the project activities. The LGs supported WFP's LCPs since LGOA 2017 has given a responsibility to the LG for coordinating, facilitating and assisting federal and provincial governments, among others. The CAFS-Karnali is a federal-level project implemented by the WFP based on an agreement between the WFP and the MoFE, with an OBOfT funding mechanism. This incentivized them to mobilize and support LCPs toward the achievement of the project activities, rather than co-financing the project activities, which they could have done. Likewise, the deputy mayor or vice-chair supported project activities as the LGOA has mandated the deputy mayor/vice-chair to coordinate the activities of NGOs/CBOs.

165. While the SoP envisaged LPCUs will be led by the respective Executive Officers, these were chaired by the Mayors and Chairperson in Jumla and Mugu, and by the Executive Officer in Kalikot, with chairpersons as guests. Therefore, the project's coordination with LGs were strong and regular. The respective ward committees participated in the project activities as per the LG instructions.

166. The WFP field coordinator was responsible for coordinating the project activities at the municipality level fielded in each district under the agreement signed between the Ministry and the MoFE on May 21, 2018. Not only did this arrangement ensure WFP's presence in the district for the CAFS-Karnali, but it also helped to establish a tri-partite coordination between LCP, WFP, and MoFE.

167. **Efficiency assessment:** The evaluation rated efficiency satisfactory since the project demonstrated that the costs involved in achieving project results were reasonable and ensured the access of the most vulnerable HHs (category III and IV) to the funds allocated towards community assets building. The expenditures were not overrun and spent timely as planned despite several unexpected external challenges due to a flexible on-budget off treasury fund flow mechanism.

168. The project was economically viable and worth investment. The project had low management cost compared to other projects in the country, with more than 90% of funds channeled to the local level. The

[104] ibid

project worked with limited human resources and partnered with the local NGOs, substantially reducing management costs. The cost and benefit analysis reveals that the benefit-cost ratio (BCR) was higher than one with a positive net present value, making the project financially efficient.

2.4 GENDER EQUALITY AND WOMEN EMPOWERMENT

QUESTION 4: TO WHAT EXTENT THE CAFS-KARNALI PROJECT ADDRESSED GEWE IN DESIGN, IMPLEMENTATION AND MONITORING?

Finding 9: The project ensured gender considerations in the design and included gender-sensitive indicators since the AF Gender Policy bars the project from funding any projects if gender articulation is missing. While this covenant created a conducive environment for the project to incorporate gender in the project design phase, throughout the implementation, CAFS-Karnali has been successful at implementing the gender equality and women empowerment agenda (GEWE), resulting in the achievement of gender targets.

Finding 10: The project is gender friendly and concerned with gender equality and women empowerment and that many gender equality and women empowerment related policies such as National Gender Equality Policy 2020, Gender Equality and Social Inclusion (GESI) Strategy 2021 – 2023 were designed and developed by the Government of Nepal during the duration of CAFS-Karnali, available evidence and coordination mechanism provides no evidence on CAFS-Karnali's contribution to national gender policies and strategies, but definitely adequate contribution to the AF Gender policy and Strategies .

GEWE in Project Design

169. The project has incorporated gender dimensions in both project objectives and the logical framework, which implies considerations in the theory of change. The AF's gender policy[105] bars the project from funding any projects if gender articulation is missing. Likewise, the WFP's Gender Policy reiterates that pursuing gender equality and women empowerment is central to the WFP's mission of saving lives, changing lives, and supporting countries in their quest to achieve the SDGs. Consistent with these policies, the project design incorporated gender dimensions, which is explicit in the project's 2nd component, which introduces renewable energy-based systems to support women-led enterprises. The realization embedded in the project's design that promoting women-led enterprises may add more work to the women already carry higher workload due to increased household chores and increased feminization of agriculture is noteworthy. Renewable energy (clean energy[106]) based enterprises reduce women's workload and improve their health substantially. Considering women's strategic and practical needs is central to promoting renewable energy-based women-led enterprises, the project ensures that women and men have equal opportunities to build resilience, address their differentiated vulnerabilities and increase their capacity to adapt to climate change impacts. The project is responsive to the gender policy of both the AF and WFP.

170. The project design ensures equal opportunity for women and men regardless of their background, age, race, ethnicity, religion, class, language, ability, or gender equality. The intensive consultations carried out by the WFP during the preparation of the project proposal/ project design helped it to appropriately factor "Gender" in the design of the project, as seen from the inclusion of the following three indicators- percentage of women within the target population aware of predicted impacts; number of women engaged in new income-generating ventures; and number of women-led enterprises created (**Annex XIX**).

Mainstreaming GEWE in implementation and monitoring Stage

171. Throughout the project implementation, the project remained responsive to women's participation and engagement, including support to establish enterprises led by women and include women in the management of enterprises. The following actions of the project reveal the project's efforts to mainstream GEWE in implementation.

- Increase awareness of women on predicted climate change impacts
- Ensure representation of women in any events organized by the project, be it in working or the formation of users' committees or repair and maintenance committees.

[105] Guidance document for implementing entities on compliance with the adaptation fund gender policy, AF March 2017, Updated August 2022; and WFP Gender Policy (2015-2020), WFP Gender Policy (2022-2027).
[106] Non clean energy includes firewood, coal, and cow dung.

- Ensure equal wages for men and women for the same work.
- Identify the most vulnerable HHs, including women-headed households, in the adaptation plans.
- Plan to handover CSC building to women-led user committees to ensure their greater decision-making role.
- Increase access of women to forest resources.
- Adopt affirmative actions for the inclusion of women.
- Apply gender lens in monitoring the outcomes and outputs of the project, disaggregated gender reporting, e.g., women, poor and marginalized households.
- Engage women in new IGVs (enterprises) with targets and ensure they play a greater role in decision makings.

172. **The project highly valued women's participation**. The project adopted several affirmative actions to ensure gender equality and women's empowerment through activities such as counting women head, equal labour pay for women and men for same kind of works, direct payment through Bank, introducing renewable energy-based systems to support women-led enterprises. Support to women led enterprises has contributed not only to increase women's participation but also to enhance economic and social empowerment. The project initiatives to ensure equal opportunities women and men to build resilience, address their differentiated vulnerabilities and increase their capacity to adapt to climate change impacts were admired by all key stakeholders. However, the evaluation could not trace evidence to document who among the women benefitted from the project interventions, poor women, Dalit, or ethnic minorities. The baseline study did not provide gender-disaggregated data. As per the approved project document and budget, there was no plan to carry out a separate gender assessment at the beginning of the project and no gender impact assessment at the end of the project. However, voluntarily, the project carried out Gender Impact Assessment in the final year of the project, which provided the relevant gender impact related disaggregated data however the ET had limited opportunity to compare gender-disaggregated data across baseline and endline.

173. Although AF's gender policy clearly states that the implementing agency will be required to undertake an initial gender assessment to select gender-responsive indicators and to design gender-responsive implementation and monitoring arrangements, neither the baseline survey provided gender-disaggregated data nor the project carried out gender assessment during the inception phase, and implementation period.

174. During the PPR preparation, the project regularly monitored values for the indicators and targets. However, integration of qualitative indicators in the project's results framework could have enhanced understanding and analysis of data and evidence. Similarly, as also stated above, the ET faced challenges in presented gender-disaggregated comparisons against baseline and endline due to limited gender-disaggregated baseline data. As a result, the evaluation is not able to comment on the degree to which the project intervention reduced or perpetuated inequalities, and how equitably the vulnerable groups leveraged benefits. However, the project-conducted gender impact assessment has found remarkable changes and positive results in reduction of gender inequality and empowering women.

175. The project carried several promising activities such as CSC building construction, seed banks, rustic stores, and construction/rehabilitation of surface and lift irrigation. However, the evaluation understands that benefits of these infrastructure, especially for women, persons with disability and ethnic minorities, could have been enhanced with dedicated studies around existing capacities, and gaps. In that regard, the project should factor-in periodic GEWE assessments to continuously assess the abilities of marginalized groups and accordingly integrate findings of such assessments into its design on-the-go.

176. To bring transformative changes in women's access to and control over resources/ inputs, women must have sustained access to these income sources even after the project ends[107]. The project would benefit from a separate thematic study at the inception of the following project to the CAFS Karnali to

understand benefits of these changes among different groups – women, persons with disability, ethnic minorities, among others.

177. The project conducted a gender assessment at the end of the project implementation. The conclusion of this study is noteworthy: "Gender assessment should be done before the project implementation to get the baseline information so that it would be easy to track the change and progress after the project intervention." The report adds, "The project has no data and information to compare the GIA undertaken by it towards the end of the project[108]. The GIA[109] found that women's access to (and control over, to some extent) production inputs have increased; however, results were not conclusive on other resources like land, water, and household assets.

QUESTION 4.1: TO WHAT EXTENT DID THE CAFS DESIGN AND IMPLEMENTATION CONTRIBUTED OR (NOT) TO THE AF/WFP GOAL OF GENDER EQUALITY AND NATIONAL GENDER POLICIES AND STRATEGIES?

178. The project had the opportunity to revise the indicators and add other gender related newly emerging issues considering the changed contexts during inception period in 2018. The concepts of "equal wage for men and women for similar nature of job" and "counting the number of women engaged in project activities" adopted by the project was noteworthy.

179. A review of the inception report shows limited consultations with the three key ministries - Ministry of Women, Children and Senior Citizens (MoWCSC), Ministry of Agriculture and Livestock Development (MoALD), and Ministry of Federal Affairs and General Administration (MoFAGA). Given the project's policy to incorporate gender issues at all stages of the project cycle, the contribution and engagement of MoWCSC as GoN's gender focal agency is of high importance to this project, which is also a nodal agency for women, children, and social welfare related international treaties and conventions. Likewise, MoALD and MoFAGA could also have benefitted, given the government's high priority on mainstreaming climate and gender-related issues within the ministry.

180. **GEWE assessment**: GEWE was adequately considered in the design phase and remained valid throughout the project implementation. The project has created several innovative and infallible measures to achieve GEWE results. However, the evaluation still rated as satisfactory because of missing gender-disaggregated baseline data, which limited opportunities to map changes and achievements of the project – specifically among women beneficiaries. In this context, the evaluation also suggests the project to conduct a gender assessment in the beginning and gender impact assessment at the end of the to mitigate such potential gaps for the future. Refer limitations section (pg. 19-20)

2.5 IMPACT

QUESTION 5: TO WHAT EXTENT DOES THE PROJECT CONTRIBUTE TO INCREASING THE RESILIENCE OF COMMUNITIES VULNERABLE TO CLIMATE CHANGE?

Findings 11: The project generated an additional income of NRs 16,458 per year among households adopting climate-smart practices compared to those not adopting any practices. It created short-term employment opportunities during the lean agricultural period and saved the life of the people during the COVID pandemic. The project contributed to improving food security by enhancing the economic capacity of households to meet essential needs. Likewise, the livelihoods assets score of the households increased. The people are moving away from cereal-based farming to agro-forestry practices. More importantly, the project promoted apple farming, which will likely become transformative climate adaptive actions in the future. While all this evidence reflects impactful results delivered by the project, the evaluation considers assessment of the impacts of climate adaptation activities still pre-matured. As the project has recently ended, it is too early to predict and realize the project's positive impact on climate adaptation and ecosystem resilience. Nevertheless, the evaluation encountered some promising results that point towards a positive direction in terms of the achievement of impacts on a longer run.

[108] WFP (2022). Gender Impact Assessment Report Adapting to climate-induced threats to food production and food security in the Karnali region of Nepal (CAFS- Karnali) Project. World Food Programme, Country Office, Nepal
[109] ibid

181. The project supported the construction of 118 community infrastructures. Of these, several infrastructures like MUS technology-based irrigation schemes have begun to increase agricultural productivity. Beneficiaries of rustic stores have begun to minimize post-harvest losses, which is 1.2% for cereals and 8.3% for potatoes[110]. Likewise, the project supported several income-generating ventures to supplement the household income.

182. **Increasing resilience of communities vulnerable to climate change in the short-term**. The survey data revealed the annual income of households adopting adaptation measures was higher by NRs 16,458 per year than non-adopters (Table 15) , with adopters' farm income higher than that of non-adopters. Although the difference between the two groups (adopters and non-adopters) was not statistically significant[111], the project can expect increased resilience confidently in communities vulnerable to climate change after a few years when the apple orchards start bearing fruits, and increasing agricultural productivity in dry areas. The project's contribution to the short-term food security through wage earning is visible. This, in turn, may increase the resilience of the communities vulnerable to climate change later from the medium to long term. Likewise, the FGDs and KIIs confirmed increase in community's capacity to cope with climate shocks and stresses through project results such as increase in awareness, knowledge, and skills of a large majority of HHs (more than 85%) to undertake appropriate responses to the predicted impact of the climate change and the development of several community assets to cope with climatic risks.

Table 15: HHs income (NRs/HHs)

Adaptation	Farm	Non-farm	Total
With Measures	59,372	209,366	68,738
Without	45,111	207,169	52,280
Difference	14,261	2,197	16,458

183. The project increased farm and non-farm incomes by providing unskilled and skilled labour work, resulting in the short-term food security for those who participated in the project activities. The cash income earned by a household per year is estimated at US$ 58.0. This amount is almost equivalent to 80 Kg of rice, sufficient to ensure short-term food security for a family of 5 persons for about 20 to 25 days.

184. Most of the HHs with access to drinking water facilities felt not only that year-round water availability has increased (97.1%) but decreased in water collection time (71.0%). This reduced the workload for women, providing an opportunity to use saved time in other income-generating activities to supplement household incomes.

"The project is a gift of God. They supported irrigation canal construction, which we have been dreaming from the last decade. Now, we can cope with the drought problems since water availability has improved."

Farmer, Pachal Jharna

185. Of those households having access to irrigation, nearly one-third reported increased water availability (39.0%), followed by year-round availability (38.5%) and increased quantity of water distribution (34.4%). Likewise, 23.8% of households reported decreased water disputes/conflicts. The decrease in water related disputes/conflicts within the communities can be considered as an unintended positive impact of this project.

186. **Increasing resilience of communities vulnerable to climate change in the medium to long term**. The survey data confirmed that the project resulted into the household's economic capacity to meet essential needs. The evaluation revealed an improvement in the capacity of 63.2% of households to meet their essential needs, varying from 70.8% among less vulnerable to 60.2% among highly vulnerable groups.

Impact of an apple orchard to increase climate resiliency

A Farmer in Soru said, "I am hopeful that with my 100 apple trees, I can feed my family for at least three months when they start fruiting. Therefore, I am caring for apple plants in my orchard like children. The price of land has increased manifold after I transformed my unfertile stony land into an apple orchard, notwithstanding that I was paid to make pits and fence the garden.

[110] Findings from final evaluation survey

[111] H0: μ1 = μ2; H1: μ1 > μ2 (Right tailed test), p=0.113>0.05, not significant at 95% CI

This became possible due to increased income and employment opportunities. The difference between the two groups was statistically significant, showing a higher benefit to less vulnerable households. Furthermore, the livelihood-based assets score revealed that 54.6% of the population benefitted through an enhanced livelihood asset base. The proportion of households adopting no negative livelihoods-based coping strategies increased from 28.8% in the baseline to 59% in the current survey, confirming the project's contribution to improving the livelihoods of households.

187. One-third of the HHs with increased access to water for agriculture reported increased crop productivity, with 16.9% and 14.9% reporting diversification of crops and increased cropping intensity, respectively. This reveals that the irrigation facilities with MUS technology developed by the project will likely increase agricultural productivity and local communities' capacity to cope with drought and climate stress.

QUESTION 5.1: TO WHAT EXTENT DID THE PROJECT CONTRIBUTE TO INCREASING THE RESILIENCE OF COMMUNITIES VULNERABLE TO CLIMATE CHANGE?

QUESTION 5.2: TO WHAT EXTENT CAFS-KARNALI'S INFLUENCE COULD BE OBSERVED IN NEIGHBOURING AREAS OR OTHER WARDS NOT REACHED BY THE PROJECT IN THE SAME RM.

188. **Created platforms/opportunities for other similar projects implemented in the project areas**. The project supported different community infrastructure construction, especially on drinking water and irrigation canals. Utilizing this facility, projects supported by other donors such as the Bhakari Project, implemented by Mercy Corps. The Bhakari project provided polythene tunnels to the farmers for off-season vegetable farming to the beneficiaries of CAFS-Karnali drinking water schemes. Likewise, "cash transfer to the direct beneficiary account" is being replicated by some government programs, e.g., Prime Minister Employment Programme and other WFP projects. The project sensitized and supported risk minimization and mitigation through insurance and agro-advisory services. The project had supported 143 apple farmers and 49 livestock farmers to insure their crop and livestock, respectively in Tila and Hima rural municipalities. Though the number of farmers participating in the scheme was small, its impact was high. Several farmers in neighbouring areas, have started to inquire about the insurance process, started to insure their apple orchards and livestock, when they knew that they will be compensated for loss through insurance if loss occurs due to natural or climatic factors.

Impact assessment

189. The project has just been completed. Its longer-term impacts are yet to be realized and experienced. Despite the results of interventions related to climate adaptation are not adequately visible at present and it is too early to predict and realize the project's impact on climate adaptation and ecosystem resilience, this evaluation observed several promising results due to the increased ability to adapt to climate change and build the resilience of the most vulnerable communities and the ecosystem. Some of the evidence includes the year-round production of food crops in additional hundreds of hectares of land through the community irrigation projects in the three districts and bringing into the operation of micro-hydro projects and community seed banks.

190. The project has supported the construction, rehabilitation, and reconstruction of more than 15 types of 118 community infrastructures (average of 17 per RM) and supported the initiation of 138 enterprises just in four years. The evaluation team is highly appreciative of this effort. However, utilization aspects of most high-investment infrastructures, such as community service centres, community seed banks, lift irrigation, and many MUS-based irrigation schemes, are challenging, yet offer the project a key area to focus on during its next phase of implementation. Developing 138 rural micro-enterprises (nearly 20 enterprises per RM) of 39 different types have not happened so easily with small efforts.

191. Alongside significant contribution to community infrastructure building, the project could have maximized its results with a more robust community utilization and monitoring plans, focusing on strengthening climatic resiliency of local communities.

192. LAPAs have been prepared and as highlighted in the outputs section, there is evidence of its utilization in annual development planning of local governments. However, the newly appointed leadership leaders through 2022 local elections demonstrated limited understanding about LAPA and its integration in upcoming annual development plans. The evaluation team flags this as a compelling challenge moving forward. Without maximum local ownership and utilization of LAPA, it is impossible to project a sustainable and impactful future of climate adaptation achievements made by CAFS Karnali during this phase of

implementation. Towards that front, the project can also seek to mobilize sectoral agencies and assist ward committees, together with dedicated interventions to sensitize and orient the new leadership regarding utilization of LAPA.

2.6 COHERENCE

QUESTION 6: HOW WELL DOES THE CAFS-KARNALI INTERVENTION (TWO COMPONENTS) FITS WITH OTHER INTERVENTIONS IMPLEMENTED IN KARNALI REGION, WITH OTHER WFP INTERVENTIONS AND NATIONAL CLIMATE CHANGE POLICY AND NATIONAL ADAPTATION PLAN?

Finding 12: The project fits well with the federal and provincial government initiatives to increase agricultural productivity and improve the food security and contributes to the local government's development priorities of infrastructure construction. However, collaborative actions with the sectoral agencies and new leaderships within the LGs in implementing climate actions are limited.

Finding 13: The project avoided geographical and resource duplications with ASHA Project in Kalikot but complements the work of NCCSP in Jumla. Likewise, it has complementarity relationships with the Bhakari project.

Federal government

193. The project prepared LAPAs, established multi-purpose nurseries, with seedlings of fruit and non-timber species. This complements to the15th periodic plan targets (2018/19-023/24) on LAPA preparation, building adaptive capacities of climate-vulnerable households by supporting to diversify livelihoods. The project supported the operation of NTFP management, including the commercial farming of the NTFPs. It complements and supports soil and water conservation programme, specifically through the construction of facilities for landslide control, water source protection, and management of water resources.

194. The project complemented the agricultural sector program for increasing agricultural productivity and improving food security, which was implemented in the Karnali province. Some of the federal government agricultural programmes that complement the project goals and objectives include ADS monitoring and coordination programme on organic farming promotion program; plant quarantine and the establishment of "farmers field schools for integrated pest management; Agriculture Sector Development Program in Jumla district, which provides financial grants for expansion of agricultural road, agriculture markets, and irrigation facilities; Climate Impact Resiliency building program, implemented (Agriculture Management and Information System), which focused on establishing the agro-advisory services and training LGs officials on climatic impacts and appropriate response related to the agricultural sector. The project complements the Prime Minister Employment Program (PMEP), which guarantees at least 100 days of employment (Cash for Work) through the local government by creating employment opportunities. It complements Prime Minister Agriculture Modernization Project (PMAMP), which envisages developing the agriculture sector as a profitable business through activities like Apple Pocket Development Program in the Jumla district.

195. The project supported the forestry and climate sectors' vision; and avoided resource duplication at the ground, e.g., apple farming in Jumla. Furthermore, the project supports food security improvement, increased agricultural productivity, and sustainable forest management.

196. Economic Survey Report, which the Ministry of Finance must submit to the National Parliament at the beginning of each fiscal year before the presentation of coming fiscal year budget and programme, monitors the performance of the CAFS-Karnali and presents key achievements. This reveals importance of this project to the country's economy.

Provincial government

197. No specific programme of the provincial government specifically addressed the climatic impacts. However, many programmes complement and support building local communities' resilience capacity. Karnali province has prioritized organic agriculture and the promotion of indigenous crops like naked barley (*Uwa*), potato production, and marketing. Supporting rustic stores and community seed banks complemented the MoLMAC's potato production and indigenous crop promotion programmes. The project complements the provincial government's agricultural development programme, especially on small-scale irrigation canal construction, repair and maintenance, seed production and management, skill enhancement for commercialized farming, off-season vegetable farming, fruit farming, nursery

establishment, etc. Likewise, it complements forest management, restoration of degraded land, commercial business on the NTFPs, and expansion of drinking water schemes and other rural infrastructure. For enterprise development, this project has adopted a micro-enterprise development (MEDEP) model, which directly contributed to promoting and upscaling the MEDEP model, being upscaled through the District Industry and Consumer Welfare Protection Offices under the MoITFE. These initiatives complemented the project efforts, improving the people's livelihoods, especially by increasing their adaptive capacity to cope with climatic shocks and stresses.

Local government

198. The project also complements the local government's annual plan and programme, especially on community infrastructure construction, such as irrigation and drinking water. Likewise, it also contributed to increasing food security and income of the local communities through the improved farming and enterprise development. The project contributed to meeting the citizens' immediate needs and priorities like drinking water, MUS-based irrigation and drinking water systems, and enterprise development, which may not be possible through the current financial and human resources available at the LGs. More importantly, no resource duplication was observed between the project and LGs investment priorities.

Complementarities with other WFP initiatives

199. Though there is no functional collaboration between different projects implemented by the WFP, there were no resource duplications and strengthened complementarity relationships. For example, the project contributed to the WFP Mother and Child Health and Nutrition (MCHN) programme prioritizing the lactating mother during the vulnerability assessment, thereby contributing to the treatment and prevention of malnutrition among pregnant and lactating women and children aged 06-23 months. Likewise, it also contributed to increasing nutritious food availability through kitchen gardening and irrigation facilities improvement. It further contributed to the COVID-19 Livelihoods and Economic Recovery Program (LERP), implemented in Kalikot district, which complements food security and livelihoods recovery.

QUESTION 6.1: TO WHAT EXTENT CAFS INTERVENTIONS COHERENT WITH THE POLICIES AND PROGRAMS OF GOVERNMENT, INTERNATIONAL HUMAN RIGHTS PRINCIPLES AND STANDARDS, AND OTHER WFP PARTNERS OPERATING IN KARNALI REGION SUCH AS IFAD (ASHA AND ASDP), UNDP'S NCCSP?

200. The project complements the ASDP, which targets smallholder producers and landless rural people in targeted value chain activities such as apple, ginger, and goat. The project also complements USAID's "Bhakari programme" managed by Mercy Corps Nepal, which focuses on increasing long-term food security while responding to short-term emergency shocks via an integrated, multi-sectoral approach. Despite two of the three WFP's LCPs are local partners of the Bhakari programme in the Kalikot and Mugu districts, the evaluation reveals no resource duplication and dual reporting.

201. The working areas of the ASHA implemented by MoFE between February 2015 and July 2022 through IFAD assistance, "Palata and Pachaljharna," tally with CAFS-Karnali sites in Kalikot. The evaluation could not observe any evidence of collaborations and leverage of resources with the ASHA toward achieving synergistic results, except avoiding duplication in geographic coverage by distributing wards between the two projects. Different implementation modalities and different annual planning and implementation period further impacted on it.

202. The project complements the NCCSP, which aimed to address four significant climate risks related to infrastructure (resilience, loss, and damage); quality and quantity of water; agricultural yield and food security; and biodiversity and natural resources targeting people experiencing poverty and women. The preparation of LAPA was a priority for both NCCSP and CAFS-Karnali, but NCCSP implemented project activities after LAPA preparation, and mainstreaming LAPA in sectoral programmes was a key issue.

203. The MoITFE of the Karnali Province Government has ensured that the PCCMIS initiated by the CAFS-Karnali will be continued, updated, and made user-friendly with the support of the NCCSP-II, which follows the On-Budget on Treasury (OBOT) funding mechanism. The programme implementation modality of the NCCSP II and CAFS-Karnali differs by funding mechanism.

2.7 SUSTAINABILITY

QUESTION 7: WHAT IS THE LIKELIHOOD THAT THE RESULTS OF THE PROJECT (INCREASED RESILIENCE, INCREASED ADAPTIVE CAPACITY ETC.) WILL BE SUSTAINABLE AFTER TERMINATION OF EXTERNAL ASSISTANCE?

Finding 14: Many LGs officials expressed their awareness and appreciated the project activities; however, there is limited vision in LGs on ensuring completion/ continuity of the project's-initiated works and sustainability of facilities and assets created by the project. Those factors, to some extent, increased the risks to the sustainability that all activities will be continued in the future even after the termination of the project. The project efforts toward sustaining the results were limited.

204. **Likelihood of the Sustainability of the Project Results after the Termination of the External Assistance, especially AF Funding:** As discussed earlier, CAFS-Karnali's assistance to develop 118 community assets and 138 enterprises, of which the majority are led by women, in the Karnali Province, which is Nepal's one of the least developed and geographically challenging province, with highly varied physiography, climate and altitude, is impressive. This evaluation assessed the prospects of their sustainability in the years to come. While the sustainability is a constructed and contested concept which, the people will tend to define differently based on their own orientations and understanding. With these understanding, this evaluation looked into different risk factors, which could reduce the sustainability prospects of the project results.

205. **Financial Risks**: The financial positions of all the local governments (25 Municipalities and 54 Rural Municipalities) in the Karnali province is quite precarious. The dependency of these LGs on the federal and provincial governments to undertake development activities and deliver goods and services expected by their citizens is very high and increasing, as exemplified by Hima Rural Municipality, which is one of seven RMs supported through CAFS-Karnali. Of the total budget appropriated by it, the proportion of internal revenue and internal source in 2022/23 was 0.5% and 19.3%, respectively. Rather than increasing the contribution from these sources, the total budget estimated by this RM for the coming three years reveals 0.4% and 4.7% for internal revenue and internal sources, respectively[112]. The Hima RM is not a unique case but applies equally to all seven LGs. The annual budget of the LGs varied between NPR 400 to 700 million (US$ 3 to 5 M), of which a large majority (about 60% to 75%) were conditional grants from the federal and provincial governments' line ministries, e.g., Education, Agriculture, Physical Infrastructure, Health, which inevitably require to spend on the programmes identified by these government line agencies applying the prescribed norms and criteria. In addition, administrative expenses such as salary and other office expenses accounted for nearly 15% to 20% of the total fund, thus availing limited funds for development works. The remaining 10-15% of the amount are distributed to the ward committees to implement their priority activities. Nevertheless, LGs have established the local infrastructure repair and maintenance fund at municipal level for repair and maintenance of infrastructures and expressed commitments for management and operation of these infrastructures.

206. **LG's Priority:** LAPA Framework 2020/21 encourages governments, bilateral and multilateral agencies, and civil society organizations to prioritize funding for the most vulnerable households and communities. Both 2011 and 2019 climate change policies call for allocating 80 per cent of climate finance to the local level. Neither is the 80% budget allocation and climate financing mechanism at the local level clear at this moment, nor LGs seemed ready to change or revert to their priorities, from infrastructure development. For local people, development means roads, bridges, schools, and temples. Therefore, from the political dimension, LGs state food security and agriculture as their priority, but investment priority goes to the infrastructure, which is counted on numbers, types, beneficiaries, and locations. Sustaining project results remain challenging unless LGs' capacity to climate finance and allocate budget accordingly is increased and monitored through an effective compliance instrument such as climate change budget code. The National Planning Commission had developed climate change budget code (CCBC) to track climate-change related expenditure at the national and sub-national levels on a regular basis[113]. Although the LGs

[112] 2080/81 Policy and Budget of Hima Rural Municipality Presented at Rural Municipality Council.

[113] NPC (2012). Climate Change Budget Code, Documenting the National Process of Arriving at Multi-sectoral Consensus, Criteria and Method, Published by Government of Nepal, National Planning Commission with support from UNDP/UNEP in Kathmandu, Nepal in September 2012. The government had initiated to track climate expenditure by providing climate change budget code since 2012/13 and identified 11 activities which are considered as climate change related activities. These 11 activities include most of the activities sponsored by CAFS-Karanli.

are yet to adopt CCBC system at local levels, GoN's target to formulate LAPAs in all 753 LGs is likely to contribute to the financial/ economic sustainability of the CAFS-Karnali initiatives and apply a similar system at the local levels as well.

207. GoN's Climate Change Financing Framework (CCFF) 2017[114] provides a roadmap to guide mainstreaming climate actions into development plans and budgets and improve accountability and reporting on the effectiveness of climate investments. The roadmap further guides the sectoral ministries in SDG implementation and localization by ensuring that climate actions are well integrated into SDG based plans and monitoring frameworks at all levels.

208. Frequent natural disasters, especially floods, and landslides, further pose challenges, where expenditure is mainly confined to relief, rescue, and humanitarian actions. Hence, it is less likely that LAPA priority interventions would be implemented. Nevertheless, the community infrastructure especially drinking water, and support for agricultural activities would contribute to climate adaptation by default.

209. **Intersectoral coordination**: The project's operational collaboration with the key agencies like MoALD, MoLMAC and MoFAGA remained limited, who were also a part of the project coordination committee. For sustainability of the project results, majority of actions and responsibilities fall under the mandates of the agricultural sector/ ministries at the local, provincial, and federal level. According to the project, there was no plan of engagement of such ministries/agencies in designing and implementing climate actions and were not the targeted institutions. However, limited engagement and collaboration with these agencies are likely to increase the risk of sustaining the project results. The project should have established functional collaboration with the MoALD and MoLMAC for wider scaling-up of the project's best practices.

210. **Socio-political risks.** Relatively high proportion of population aware of predicted climate change impacts; and of appropriate responses (85.1%) vis-à-vis a target of 80% reveal low socio-political risks to the project results. Ward committees and beneficiaries are aware of the project activities. Project has addressed their needs proactively. Direct wage payment to the beneficiaries and entrepreneurs through the nearest commercial banks reduced not only the financial/ fiduciary risks, but also convinced the beneficiaries that they will receive payment timely and transparently. Many beneficiaries recalled how, in the past, they were cheated many times by the contractors, who would promise to pay their wages timely as agreed, pay some early instalments to convince that payment will not be a problem, but run away from the sites after the completion.

211. **Institutional Framework and Governance related risks to Sustainability.** The evaluation does not find any risks to sustaining the project outcomes from any legal, policy, or regulatory dimensions considering the government's long-term commitments towards climate actions. Climate change related policy effort has been going on in Nepal since the ratification of UNFCCC in 1994. The government has taken a number of policy initiatives and established institutional mechanisms to mainstream climate change into development processes[115]. The LAPA framework 2019[116] is already in place. The government has approved National Climate Policy 2019 which envisages to contribute to socio-economic prosperity of Nepal by building a climate resilient society. The policy expects to receive continued financial resources through bilateral and multilateral international financial mechanisms like REDD+, Green Climate Fund, Global Environment Facility, Adaptation Fund, Climate Investment Fund, Carbon Trade etc. The policy envisages to mobilize at least 80 percent of amount for implementation of programs at the local level by reducing administrative expenses while mobilizing the Climate Finance obtained through international mechanisms. Likewise, policy interventions are also required to minimize the youth out migration which is in an increasing trend post COVID pandemic. Youth outmigration weakens the agricultural labour force for the required adaptation efforts, which is an economic/ demographic risk to the project's sustainability.

[114] MoF, (2017): Climate Change Financing Framework: A roadmap to systematically strengthen climate change mainstreaming into planning and budgeting. Ministry of Finance.
[115] MoFE (2021), NEPAL Third National Communication to the United Nations Framework Convention on Climate Change, Ministry of Forests and Environment.
[116] Earlier LAPA framework 2011 was repealed by this 2019 framework to fit in with the new federalization context and the LGOA 2018, which requires LGs to pay attention to climate change adaptation, including disaster management.

QUESTION 7.1: TO WHAT EXTENT SYSTEMS AND/OR MECHANISMS BUILT BY THE PROJECT (CAFS-KARNALI'S KEY INTERVENTIONS) WILL REMAIN/BE CONTINUED BEYOND THE LIFE OF THE PROJECT? WHAT ARE THE EVIDENCE OF GOVERNMENT'S OWNERSHIP OF PROJECT ACTIVITIES AND ACHIEVEMENTS?

212. **Direct LG and community handover of high investment community assets**. A key mechanism developed by the CAFS-Karnali to ensure utilization, repair and maintenance of infrastructures developed by the project is direct handing over the infrastructures to the users, for example, CSCs to the women users' committees, alongside official government handover. However, at the time of the data collection, the CSCs had just been completed and were yet to come into full utilization. Two CSCs in Mugu were being utilized as LG office. The remaining six CSCs were yet to come into operation or were being partly used by local vendors to operate tea/coffee stalls, and groceries. According to the project team, these CSCs were yet to handed over to the local communities and local government.

213. When asked members of the ward committee and beneficiaries of a Water Lift Pump, which was constructed with the project support in one of the project districts, the response was mixed. Some said users will take care of it if the scheme is handed over to them provided that they are convinced of cost-effective water-lifting in practice, they are taught how the system operates, and at what cost and benefits. The others said that the scheme is beyond their capacity to repair and maintain when any mechanical problems occur. Neither are mechanics locally available, nor is it within their financial capacity. They advised to hand over the scheme to the Agriculture Development Section of the Rural Municipality, which will manage the water delivery to the users, teach them to use the pump, and take care of repair and maintenance responsibilities.

214. **Utilization of LAPAs**. The project delivered LAPA to each of the seven LGs. As discussed under Outputs section, there is some evidence of integration of LAPA priorities in LG planning process. However, after 2022 local elections, as the LGs now have a set of new elected representatives, the evaluation noticed some gaps in terms of a complete orientation and sensitization on LAPA implementation process. As the project was already coming towards its end when the new leadership came, there was a very limited opportunity to reorient and engage with the new government representatives regarding the utilization of LAPAs in annual planning process (**see Annex XX**). Nevertheless, this identified gap also presents WFP with an opportunity to extensively engage with the local governments further.

215. **Capacity of repair and maintenance committees**. The project invested more than half of the resources in constructing infrastructure related to climate adaptation, such as drinking water, irrigation, multiple water uses, or for economic empowerment, e.g., collection centre, CSCs, and rustic stores. The project supported to prepare repair and maintenance guidelines for the LGs; however, resource allocation to implement the guidelines by LGs is minimal. Local communities lack resources and capacity for repair and maintenance. This poses challenges for operations after the termination of the project. Preparation of Guidelines is necessary but not adequate to ensure sustainable operation, repair, and maintenance of the systems/ structures. Unless backed by necessary resources, accountability, and ownership with requisite knowledge and skills, the risk to implementation remains. This is quite evident with the flood and landslides of September 2022, where some of the facilities created by the project got damaged, and the beneficiaries were unable to repair and maintain them on their own. They approached LGs for the support.

216. The institutional capacity of the LGs is incipient. LGs have limited human resources to manage climatic issues and guide the ward-level local leaders to integrate into the local planning processes. In addition, inadequate physical facilities like office space and internet facilities further pose a risk to ensuring sustainability. Likewise, LGs officials have not yet been capacitated in using the learning skills. None of the LGs have yet established a specialized section or unit to assist, guide and monitor other subject specific sections which are directly responsible to incorporate climate change agenda as a cross-cutting theme, e.g., agriculture development section, veterinary and livestock development section, technical section, and health section.

217. FGDs with elected ward chairperson, local stakeholders, and participants in the FGDs revealed mixed responses with regard to the operation and maintenance of facilities. Most of the responses heard in the FGDs were as follows -

> "We have no idea, and we have never thought about this so far."
> "These infrastructures will be repaired and maintained by the constructing parties."

"The Palika will undertake repair and maintenance."
"Our ward committee (WC) is financially weak. People are poor and faced with challenges of day-to-day living."
"Neither these infrastructures are handed over to us, nor have we taken any responsibilities."
"The user committees are responsible for the timely repair and maintenance."

218. The project conducted the environment and social assessment following the AF guidelines; however, LCPs state that the time presssure and the COVID pandemic did not permit them to strictly identify the climatic risks, and work with the conviction that the purpose of the project/ infrastructure is to increase the adaptive capacity of the poor, vulnerable, marginalized and excluded groups of people affected by the climate change and its impacts.

219. The project supported infrastructure construction related to protection of water sources, riverbank embankments, multi-use water systems promotion, renewable energy promotion, and initiatives to ensure that infrastructure is resilient to potential increases in extreme weather events such as landslides, floods, and as well as extremely cold weather. However, some of the infrastructures observed by the evaluation team were found to have been built with limited systemic planning. For example, the impact of irrigation canal improvement on biodiversity and the capacity of the spring/ river water to support adaptation were not adequately considered. Likewise, in some areas, the drinking water taps were found to have been constructed in areas with limited wastewater management. Similarly, irrigation canals observed in Soru and Tatopani were found without proper drainage management- failing to link with the water outlets of the village, which increased flood risk at downstream.

220. Although the project carried out environmental/ social risk screening for construction, a few infrastructures became victims of different adverse climatic events, e.g., water mills, collection centres, and irrigation canals, needing substantial investment to repair and make them functional. Also, as per project's records, four out of 118 community infrastructures were damaged/ affected by floods triggered by unprecedented rainfall of September 2022. Two of these structures have been repaired and are currently up and running with LGs support, while other two were completely lost. For the infrastructure completely damaged and lost, the community neither had approached the agencies, including LGs, for repair and maintenance nor could they do it themselves.

Sustainability assessment

221. The evaluation rates the sustainability as "moderately likely." This is primarily because of the limited capacity of the new elected leadership in respective LGs to implement LAPAs (technically, institutionally, and financially). Similarly, incremental benefits from adaption actions are low to incentivize climate-vulnerable households in the longer run. Likewise, as mentioned above, a few community infrastructures were damaged due to recent floods and landslides.

2.8 MONITORING AND EVALUATION

QUESTION 8: HOW WAS THE QUALITY OF THE PROJECT M&E SYSTEMS ACCORDING TO 1) M&E PLANS, 2) INDICATORS, 3) BASELINES, AND 4) ALIGNMENT WITH NATIONAL M&E FRAMEWORKS?

Findings 15: The project's M&E arrangements are clear, robust, and well defined. M&E related activities are carried out timely and reports are prepared with the inputs and guidance from the MoFE. However, M&E results are not appropriately inputted into annual planning revision and review of the project result frameworks. The project did not prepare a concrete and fully budgeted monitoring and evaluation (M&E) plan.

222. The overall responsibility of M&E is shouldered by WFP-CO with facilitating and coordinating role delegated to the MoFE. The WFP kept the MoFE well informed about the on-going M&E activities and updated the results as per the SoP through NPSC meetings and trimester/quarterly reporting. At the project and field levels, the WFP Project Coordinator and Field Coordinators are key persons to manage the M&E activities.

223. The M&E plan provides a mechanism to assess project results (outputs, outcomes, and objectives) as provisioned in AF result based management (RBM)[117]. However, as required by the AF, the project did not prepare a concrete and fully budgeted monitoring and evaluation (M&E) plan, but executed based on the

[117] An approach to implementing results-based management – RBM, AFB/EFC.1/3 May 12, 2010

framework outlined in the three documents namely, (a) Proposal for Nepal (PFN) (AFB/PRC-13/R), 17 October 2013, (b) SOP (May 2018), and (c) Project Inception Report (October 2018), whereas, country's governance structure has changed remarkably between the date of proposal submission and the date of project implementation.

224. Towards the end of the project period, as part of strengthening the Climate Change Monitoring System, CAFS-Karnali initiated two innovative activities- (a) provision of Provincial Climate Change Information Management System (PCCMIS) at MoITFE, Surkhet (Karnali Province Government) and (b) Municipal Agro-meteorological Information Centre (MAIC) for the localization of Climate Information System and agro-advisory. However, the first, PCCMIS, which was installed right before the evaluation data collection, is still in the process of operationalization.

QUESTION 8.1: TO WHAT EXTENT M&E PLAN HAS BEEN CLEARLY LAID OUT THAT WHAT ARE NEEDS TO BE MONITORED BASED ON PREDEFINED PROGRAMME LOGIC?

QUESTION 8.2: TO WHAT EXTENT THE PROJECT M&E SYSTEM MADE THE BEST USE OF EXISTING (LOCAL, PROVINCIAL, FEDERAL) MONITORING AND EVALUATION SYSTEMS, INCLUDING EXISTING INDICATORS?

225. M&E-related activities are carried out timely, and reports are prepared with the inputs and guidance from the MoFE. The PPR has often appropriately captured progress vis-à-vis targets and indicators. However, while assessing the effectiveness, efficiency, and sustainability, some inconsistencies between project indicators and targets were observed, with challenges to appropriately measuring the project's progress. LCPs submit reports as per the FLAs to the PSU including photo monitoring of key infrastructures developed.

226. The PPR provided quantitative, qualitative and narration for the project indicators by results at output, outcome, and objective levels. Nevertheless, with qualitative insights and detailed case narratives, the PPRs could have been even more helpful to assess the project performance appropriately and reliably. Undertaking activities manifolds higher than the target with no implications to budgetary provisions is appreciated. However, result based monitoring and evaluation expects reasonings and extent of contribution to the objectives, and similar details will be required when some project design targets are repurposed and/ or reoriented.

One of the key roles and responsibilities of the Deputy Mayor/ Vice Chairpersons, as provisioned in LGOA 2017, is monitoring the programmes and projects implemented at the local level, and report to the Municipal Executive Committee, and s/he is the one to present local level plan and budget in the council meetings. However, none of the deputies could recall if they had formally monitored any projects and programmes implemented at their respective constituencies. They have seen and observed the projects. The changes in local leadership and staff turnover further impacted results.

227. The project has submitted quarterly/ trimester and annual progress reports to the MoFE as per the National Monitoring and Evaluation Manual by the National Planning Commission[118].

Assessment of Project/Programme M&E System

228. The evaluation rated project's M&E systems moderately satisfactory despite M&E arrangements are clear, robust, and well defined. Key reasons for the rating include (a) no revisions made in the project indicators after getting baseline survey values, (b) mismatch observed between some indicators and targets which could have been rectified easily, (c) not utilizing M&E mechanism as provisioned in the Local Self-Governance Act 1975 (d) project performance reviews not regularly carried out at the local levels.

[118] NPC (2018). National Monitoring and Evaluation Manual, National Planning Commission, Kathmandu, Nepal.

3. Conclusions and Recommendations

3.1 CONCLUSIONS

229. The project activities are consistent with the needs and priorities of the climatically vulnerable males and females, local communities, and targeted local governments.

230. The project design remained relevant throughout the project period despite the implementation got delayed by almost five years due to unavoidable reasons, which among others include, the earthquake of 25 April 2015 with aftershock on 12 May 2015, and change in country's governance from a unitary to federal system, which, subsequently, led to country's restructuring, ministries and down to the local levels, and elections at all levels- federal, provincial and local.

231. The project was completed timely with a financial delivery of almost 100%, with a strong internal financial control system, the centralized procurement and timely delivery of quality construction materials, and direct labour payment to the beneficiaries through the bank, combined with a robust verification system. The project is acknowledged for the low management cost compared to other projects, with more than 90% of funds channelled to the local level.

232. The project adopted several affirmative actions to ensure gender equality and women's empowerment through activities such as counting women head, equal labour pay for women and men for same kind of works to build resilience, direct payment through Bank, introducing renewable energy-based systems to support women-led enterprises. These activities have contributed to enhance economic and social empowerment of women and disabled persons. The project has successfully connected more than 2,000 women living in the three impoverished mountain districts to the formal banking system.

233. Project's livelihoods-based vulnerability reduction approach, focused on improving adaptive capacity and addressing socioeconomic, physical, and structural issues related to food security and climate problems, is innovative. Considering that this was the first AF grant implemented by WFP, the results are encouraging and learning are illuminating. The prospects of scaling up several good practices initiated by the project by similar projects in the project and neighbouring districts are high.

234. Overall, the final evaluation rated the project as satisfactory since five of the eight criteria were assessed as either highly satisfactory or satisfactory, with the remaining three related to sustainability, impact and M&E system moderately rated, considering the COVID-19 pandemic, unfavourable working environment and high expectations and demands of the local levels formed after more than two decades with constitutional powers and authorities and elevated to a status of government under three-tier system- federal, provincial and local. Yet, the project successfully addressed poverty, food insecurity, malnutrition, and climate-induced threats to food production and security issues in the mountainous Karnali region, maintaining and strengthening sustainable and symbiotic relationships.

235. The evaluation is also of the view that some of the indicators and targets at output and outcome levels would have been achieved through robust results-based management of the project, by revising, and updating of results framework based on emerging evidence and learnings throughout project implementation. Nevertheless, the Project's overall performance is satisfactory. All objectives and two third of outputs and outcome level targets were fully achieved. Moderate rating of sustainability reflects areas where project can leverage on coordination with multiple national and provincial partners.

236. The project did a remarkable job tackling the challenges posed by the COVID-19 pandemic. This is also evident in the efficient project expenditure highlighted in this report. However, despite project's efforts and successes, the local government stakeholders consulted during this study stated that if there was no pandemic, the results could have been better.

237. Working with and through local leaders and communities is necessary, but more is needed to achieve the results as envisaged by the project. As also specified in relevant sections of this report, while focusing on local-level collaboration and climate-sensitive infrastructure support based on local needs, CAFS-Karnali could also have initiated some coordination and collaboration with key sectoral ministries,

including the MoALD[119], which is a crucial member of the NPSC. This ministry could have supplemented the project's efforts on sustaining adaptation to climate change induced threats to food production and food security. The evaluation suggests the users of this evaluation to consider the need to undertake some follow-up activities to rectify some of these remaining tasks. This will ensure that the project's current results/ outputs are sustained, and the impacts are delivered in medium and long-term.

238. Taking the relevancy, effectiveness, and efficiency criteria in assessing the project results[120], the evaluation rates the project as " satisfactory," revealing that it had a few minor shortcomings in achieving the results. Even during the pandemic period, the project fully achieved objective level indicators and more than two third of output and outcome indicators by channelling more than 90% of fund directly at the local level. Minor shortcomings are related to (a) limited consideration on inter interconnectedness between activity and results indicators prior to dropping of activities and (b) periodic updating of the result framework, especially after the baseline and mid-term. The project provided livelihoods opportunities for the climate vulnerable households during pandemic.

239. The evaluation results show an outstanding increase in the awareness of the local communities living in climatically vulnerable areas frequently exposed to climate change and appropriate responses. The project reached 72,277 people, comprising 65,800 direct beneficiaries through different climate awareness, capacity building, and community infrastructure.

240. The four years available for this highly complex climate resilience project implemented in highly vulnerable to climate change areas frequently exposed to climate hazards and geographically remote is short to achieve all results envisaged, with limited local- level institutional capacities. The evaluation appreciates results (outputs, outcomes and objectives) achieved by the project within a short period, despite sustainability prospects and long-term impacts were questioned for several reasons.

3.2 LEARNINGS

241. Livelihood-based vulnerability reduction approach supports "improving food security and diversifying livelihoods, thereby contributing to ecosystem resilience." The prospect of sustainability of the project envisaged to increase adaptive capacity is high when the project's approach is based on livelihood diversification combined with vulnerability reduction strategy, with a priority to creating community assets, such as constructing community infrastructures. It increases awareness and diversifies livelihoods by increasing vulnerable households' income to cope with climate shocks and stresses. This approach reduced negative coping strategies. Likewise, it further encourages managing natural resources sustainably, primarily through agroforestry practices.

242. Integrating short-term adaptation measures and long-term transformative action builds climatic resiliency and generates triple dividends. Promoting fruit farming, especially apple, did not generate quick income for climate-vulnerable households. Hence, the project created short-term employment opportunities by sharing pitting costs and supporting other income-generating activities. The plantation, on the other hand, supported low tillage farming, conserved soil and water and demanded less water, which is highly suitable in drought-prone areas. In addition, it is less labour intensive compared to cereal farming. As a result of this, the project created triple dividends through (a) short-term employment and food security, (b) ensuring the resilience of the ecosystem, and (c) generating long-term variable income towards attaining impacts as envisaged by the project. This would contribute towards long-term climatic resilience.

243. Affirmative actions should consider the socio-political context instead of following objective-based targeting. Following the household's vulnerability assessment, the project followed positive discrimination and targeted women and poor and highly vulnerable households. Simultaneously, the project developed a robust payment mechanism of directly transferring wages to the bank account of the individuals participating in the projects.

244. The infrastructure plus approach, referring to a combination of both infrastructure and CS supports, is necessary for building climatic resilience and improving food security. The project constructed community infrastructure and generated short-term employment, often with "community development

[119] MoALD (2019). Integrating Climate Change Adaptation into Agriculture Sector Planning of Nepal: A Handbook. Ministry of Agriculture and Livestock Development, UNDP and FAO

[120] AF. (nd). Guidelines for Adaptation fund Project/Program for Final Evaluation, Adaptation Fund

narratives, e.g.," One house, one tap"; however, the evaluation encountered gaps in terms of establishing direct linkage of these infrastructure with long-term climate adaptation. The infrastructure built by project will have multiplied social impact if sufficiently integrated and utilization aspects proactively focused and promoted.

245. Working with and through local leaders and communities is necessary, but more is needed to achieve the results as envisaged by the project. Translating policy instruments into action requires enhancing government officials' knowledge, understanding, and capacity strengthening. However, CAFS-Karnali's collaborations and coordination to engage with the sectoral government agencies at federal, provincial, and local levels were inadequate, especially in sharing experiences/ results, creating an environment to mainstream climate change budget in the sectoral programmes, and thereby to ensuring sustainability in the long run.

246. A shared vision with mutual accountability and partnership mechanism is necessary for integrating climate action. The project facilitated preparing LAPA and implemented activities in close coordination with the LGs. Newly elected representatives may not be as aware about the importance of LAPA as previous leadership, despite there are some evidence to LAPA integration in government's annual planning. The key lesson is that the project focused on enhancing capacities on climate adaptive actions should first prepare LAPA and then assist to implement it adopting the climate change budget code at the local level.

247. Institutional capacity strengthening is a pre-requisite for implementing innovative adaptation measures such as PCCMIS and the MAIC. These systems were envisioned to establish localized Climate Information System and agro-advisory. However, at the time of data collection, these systems were yet to be fully operational. The systems were yet to be backed by adequate human resources and MEOs institutional capacity and physical office spaces. Since the project period has ended, the task to ensure if the system was generating the expected outputs/results as per the beneficiaries' needs and project's requirements should be carried over to the next project.

248. The direct cash transfer mechanism to labourers (unskilled and skilled) avoiding conventional user committee mechanism minimizes fiduciary risks and increased access to the financial institutions. it safeguarded them from financial exploitation and contributed to economic empowerment, where they can decide using their income.

249. The project had a short period to achieve results. It achieved almost two-thirds of the output targets within a short four-year period. Resiliency building is a long-term process and can't be achieved within a short project period, i.e., four years. Capacity of the local government including integration in the local planning process and sectoral programmes requires considerable time. Likewise, continuous follow up and sufficient time are required for promoting effective utilization of the adaptation infrastructure. Understandably, project duration is based on several factors, including resource availability, development partner's policy, government absorption capacity, socio-economic conditions and capacity of the target groups, and opportunities in the target areas.

250. Prior to the project's ground-level implementation, the project team should be provided with training and refreshers on results-based monitoring and evaluation and capacitated to monitor project progresses in line with the results envisaged in the project design to ensure that the team will monitor and report to the project performance results conforming to the project design targets, and assess before dropping, revising, and proposing new indicators/ targets.

3.3 RECOMMENDATIONS

251. Building on project lessons and conclusions, recommendations are proposed for scaling up/scaling out project best practices or addressing some of the risks to the sustainability of project interventions. Some of recommendations would be useful for designing similar nature of the project in future, as well. **Annex XXI** presents findings, conclusion, and recommendation mapping. Since the project has been terminated, only those recommendations are provided which could be of assistance to the future or forth-coming projects focused on increasing community resilience due to climate change (table 26). Moreover, the recommendations holding respective government agencies accountable, are for the government's consideration during future design and implementation of similar projects.

- Carry out follow-up actions to sustain the good results and initiatives of the project.

- Support the government to design climate change adaptation projects and mobilize additional climate financing including the second-national project for Adaptation Fund (to access the remaining country cap funding) that can scale-up the best practices of the project and maximize effectiveness achieved during CAFS-Karnali project,
- Establish a mechanism represented by all key stakeholders of the project to define, analyse, and track project key result indicators periodically; and keep the Implementing Agency and Executing Agency updated with documentation in relevant future projects.

Table 16: Recommendations

SN	Recommendations	Recommendation Type	Responsibility	Other contribution entities	Priority	Time frame
1	Carry out follow-up actions to sustain the good results and initiatives of the CAFS-Karnali 1.1 Share the project lessons with the LGs and development partners working on climate resilience sector 1.2 Advocate and coordinate with newly elected LGs to continuously mainstream and integrate LAPA in local planning process and sectoral plans 1.3 Advocate with LGs and monitor the sustainable utilization of the major community assets created, such as CSC building, lift irrigation scheme, drinking water scheme, community seed banks, irrigation schemes with continued operationalization of repair and maintenance fund	Strategic - Short term	WFP	LGs MoITFE MoFE MoALD MoFAGA LCPs	High	December 2023
2	Support the government to design climate change adaptation projects and mobilize additional climate financing including the second-national project for Adaptation Fund (to access the remaining country cap funding) that can scale-up the best practices of the project and maximize effectiveness achieved during CAFS-Karnali project, and including other LGs that make a part of the same sub-water shed or water shed (Strategic –Long term) 2.1 Formulate a resilience plan at the sub-watershed level/catchment level while synchronizing with the administrative boundaries at the local level in relevant future projects.	Strategic - Long-term	WFP	MoFE MoITFE LGs MoALD MoFAGA MoLMAC	High	June 2024

SN	Recommendations	Recommendation Type	Responsibility	Other contribution entities	Priority	Time frame
	2.2 Undertake capacity assessment of LGs on implementation of LAPA, including policy options for reforms. 2.3 Formulate or cause to formulate project design in such a way that the last six months of the project period be utilized for correcting any tasks remaining to sustain the created infrastructures-community assets or capacity building, and for sharing and validating project's good practices and lessons learned. No new activities should be allowed to undertake in the last six months of the project period. 2.4 Ensure that the project implementation unit is established close or at periphery to the project targeted area					
3	Establish a mechanism represented by all key stakeholders of the project to define, analyse, and track project key result indicators periodically; and to keep project management updated in relevant future projects. 3.1 Build the capacity of project managing team on results-based monitoring and evaluation system and annual plan preparation aligning with project results before the project kick-off 3.2 Support project team in preparing result-based monitoring plan of the project, including resource allocation for it. 3.3 Conduct annual performance review of the project focusing on the result indicators for tracking progresses and take adaptive strategies.	Strategic – Long term	WFP	MOFE MoITFE	High	June 2024

Annex I: Summary of Terms of Reference (ToR)

The Terms of Reference (ToR) provided by the WFP CO follows WFP's decentralized evaluation standard template and Adaptation Fund Guidelines on project/ programme final evaluation and. The ToR has set out guidelines and expectations for the final evaluation and integrates Adaptation Fund guidelines on project/ programme final evaluations.

The ToR has 5 sections. The first background section introduces the project being evaluated, the CAFS-Karnali, and briefs the country context related to the project. Describing reasons for the evaluation, section 2 instructs to carry out independent evaluation in accordance with the AF requirements. The ToR reiterates to the dual purposes of the evaluation- accountability and learning. The ToR requires the final evaluation to focus on assessing project's progress towards achievement of increased resilience/reduced vulnerability, and actions taken by the project to achieve sustainability and reliability. The objectives of the final evaluation are:

- To promote accountability and transparency within the Fund, and to systematically assess and disclose levels of project or programme accomplishments. Are programmes and projects achieving what they were intended to achieve? An evaluation validates results and can make overall judgments about the extent to which the intended and unintended results were achieved (e.g., increased resilience, decreased vulnerability, improved cost-effectiveness).
- To organize and synthesize experiences and lessons that may help improve the selection, design, implementation, and evaluation of future AF-funded interventions. What worked or what did not work and why?
- To understand how project achievements contribute to the mandate of the AF. Aggregated analysis and reporting of individual project achievements provide evidence of the effectiveness of AF operations in achieving its goal.
- To provide feedback into the decision-making process to improve ongoing and future projects, programmes, and policies.

However, the WFP, as management entity, included additional learning objectives on the top of what the AF's expectations. These learning objectives as specified in the ToR are given below:

- Establish the extent to which the skills and knowledge passed on by WFP to different national and local level stakeholders were adopted and put to use.
- Build a clear contextual understanding of the wider role WFP and Government play in ensuring gender equality and women's empowerment act as interlinked drivers for climate change adaptation works that benefits women, men, girls and boys, and people living with disabilities. Identify and review how innovation opportunities have been promoted through the project.

Having provided the preliminary stakeholder analysis, the ToR instructs the evaluation team to further deepen the stakeholder analysis during the inception phase. The stakeholder analysis allows to map and identify which stakeholders to engage in the evaluation process, why, when and how Likewise, the ToR guides the evaluation team to ensure gender equality and women's empowerment (GEEW) in the evaluation process, with participation and consultation in the evaluation by women, men, boys, and girls from different groups, and to investigate the distribution of benefits of the climate change adaptation programme to women, men, boys, and girls from different groups.

Section 3 discussed the subject of the evaluation. This, unequivocally, refers to the CAFS-Karnali. This section adequately depicts project objectives, components and target group. Being gender and social inclusion a strong and integral component of this project, the ToR requires to carry out a gender review as part of the evaluation process referring to the WFP Gender Policy (2014-2020) alongside independent assessments of factors affecting women and other disadvantaged groups engaged in climate adaptation project in Nepal. Characterizing this evaluation as a WFP Operation Evaluation, the ToR reminds the evaluation team to undertake an in-depth assessment of community resilience to climate change impacts, with both learning

and accountability objectives. In addition, the ToR instructs to focus on the following dimensions in the final evaluation as per the AF's evaluation policy:

- Achievement of project outcomes both short term and medium-term), including ratings, and with particular consideration of achievements related to the proposed concrete adaptation measures. This includes the assessment of relevance, effectiveness and efficiency of project achievements against the targets.
- Likelihood of sustainability of outcomes at project completion including evaluation of risks to sustainability of project outcomes at project completion and progress towards impacts. This should include various dimensions of sustainability including financial and economic, socio-political, institutional /governance, environmental and uncertainties on climate change impacts
- Assessment of processes influencing the achievement of project results, including preparation, readiness, country ownership, stakeholder involvement, financial management, supervision and backstopping of the multilateral implementing entity, and project start-up and implementation delays.
- Evaluation of contribution of project achievements to the AF targets, objectives, impact and goal, including a report on AF standard/core indicators. Three AF objectives, 1. Strengthened local capacity to identify climate risks and design adaptive strategies, 2. Diversified livelihood and strengthened food security for climate vulnerable poor households in target areas. 3. Increased resilience of natural systems that support livelihoods to climate change induced stresses will be evaluated.
- Evaluation of the M&E systems and implementation including assessment design, implementation, budgeting and funding for M&E plans and activities; assessment of indicators, effectiveness of project baseline and alignment of project's M&E framework to national M&E framework

Section 4 dwells on evaluation approach, methodology and ethical considerations. As indicated in this section, the final evaluation will need to focus on evaluation of short-to medium-term outcomes and provide a projection of impacts focusing on the overall outcome direction of the project and evaluate outcomes according to two dimensions- achievement of the outcomes; and Risks to Sustainability of outcomes and linkage towards impacts. Not only the ToR stresses to consider all the outcome indicators included in project log frame, but also encourages the evaluation team to include the AF's other standard/ core outcome indicators which are as follows:

- Reduced exposure at national level to climate-related hazards and threats;
- Strengthened institutional capacity to reduce risks associated with climate induced economic losses;
- Strengthened awareness and ownership of adaptation and climate risk-reduction processes at the local level;
- Increased adaptive capacity within relevant development and natural resource sectors;
- Increased ecosystem resilience in response to climate change and variability-induced stress;
- Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas; and,
- Improved policies and regulations that promote and enforce resilience measures

According to the ToR, the final evaluation will need to focus on the following five dimensions as required by the AF evaluation structure and provide an overall rating based on a multi-dimensional analysis and justification in accordance with the donor requirements:

(a) Achievement of project outcomes
(b) Evaluation of risks to sustainability of project outcomes at project completion and progress towards impacts, including ratings
(c) Assessment of processes influencing the achievement of project result
(d) Evaluation of contribution of project achievements to the AF targets, objectives, impact and goal.
(e) Evaluation of the M&E systems and implementation

On the top of the above, the ToR states that the evaluation will need to address the given key questions, which will be further developed and adapted by the evaluation team during the inception phase, and integrate the gender, equity and wider inclusion dimensions into all evaluation criteria as appropriate.

Finally, section 5 suggests the evaluation approach and methodology. This section directs to address the expectations as set out in the project evaluation guideline of the UN Evaluation Group (UNEG) evaluation criteria of Relevance, Effectiveness, and Impact Efficiency, Coherence and Sustainability and their associated evaluation questions. Likewise, it instructs to follow a systematic mixed-method approach that enables the ongoing analysis and validation of findings with the involvement of all relevant stakeholders through the KII and FGD exercises.

The scope of this evaluation is summarized below:

Timeframe: The evaluation will cover the period from October 2018 to October 2022.

Geographical coverage: Kalikot, Jumla and Mugu of Karnali Province including interventions at provincial and national level.

Beneficiary coverage: Approximately 10,850 households (estimated 65,800 people) in 7 Rural Municipalities of 3 districts are expected to benefit from different interventions (directly/indirectly) over the four years of period.

Programme component coverage: Component 1: Develop local, district and national capacity to plan, implement and monitor adaptation and risk reduction actions.

Component 2: Build household and community resilience and increase adaptive capacity of climate vulnerable poor.

Results- Objectives, Outcomes and Outputs

Annex II: Expected Users of the Report

Internal users (within WFP)

- WFP Country Office (CO) Nepal
- WFP Regional Bureau for Asia based in Bangkok (RB)
- WFP Head Quarters (HQ)
- WFP Office of Evaluation (OEV)
- WFP Executive Board (EB)
- Other WFP Countries

External

- Ministry of Forests and Environment
- Ministry of Industry, Tourism, Environment and Forests (Karnali province)
- Non-governmental organisations (WFP Nepal's cooperating partners Beneficiaries
- Government of Nepal
- Local Government
- United Nations Country Team (UNCT)
- Adaptation fund
- Other climate adaptation projects

Annex III: Key Stakeholders and Their Role

Stakeholders	Role in CAFS-Karnali	Interest and involvement in the evaluation	Stage to involve	Process/Mechanisms to involve
Internal (WFP) stakeholders				
WFP country office (CO) in Nepal	Multilateral Implementing Agency	Key informant and primary stakeholder - Responsible for the planning and implementation of WFP interventions at country level. The country office has an interest in learning from experience to inform decision-making. It is also called upon to account internally as well as to its beneficiaries and partners for performance and results of its programmes. The country office will be involved in using evaluation findings for programme implementation and/or in deciding on the next programme design and partnerships.	1. Establishment of contacts with the LCPs, LGs, PG, MoFE 2. Inception phase 3. Training of surveyors 4. Field level survey 5. Review evaluation results and getting feedback 6. Reporting stage and 7. Dissemination of the evaluation findings at the national level	Consultations Meeting E-mail Reports sharing
WFP Surkhet field offices in Nepal	Coordination at the province level (Linkage/coordination between PSU and FOs and LCPs) Oversight of field offices and technical guidance and support to field offices and LCPs	Key informant and primary stakeholder - Responsible for day-to-day programme implementation. The field offices liaise with stakeholders at decentralized levels and has direct beneficiary contact. It will be affected by the outcome of the evaluation.	1. Data and information collection at the inception phase 2. Coordination for field level survey	Consultations (Physical and Telephone) E-mail

Stakeholders	Role in CAFS-Karnali	Interest and involvement in the evaluation	Stage to involve	Process/Mechanisms to involve
Regional Bureau Bangkok (RBB)	oversight of country offices and technical guidance and support,	Key informant and primary stakeholder - Responsible for both oversight of country offices and technical guidance and support, the regional bureau management has an interest in an independent/impartial account of operational performance as well as in learning from the evaluation findings to apply this learning to other country offices. The regional bureau will be involved in the planning of the next programme; thus, it is expected to use the evaluation findings to provide strategic guidance, programme support, and oversight.	Report finalization Dissemination	Receive comments and feedback on the draft report
WFP HQ divisions		Key informant and primary stakeholder - WFP headquarters divisions are responsible for issuing and overseeing the rollout of normative guidance on corporate programme themes, activities and modalities, as well as of overarching corporate policies and strategies. They also have an interest in the lessons that emerge from evaluations, as many may have relevance beyond the geographical area of focus. Relevant headquarters units should be consulted from the planning phase to ensure that key policy, strategic and programmatic considerations are understood from the onset of the evaluation. They may use the evaluation for wider organizational learning and accountability.	Report finalization Dissemination	Receive comments and feedback on the draft report
WFP Office of Evaluation (OEV)		Primary stakeholder – The Office of Evaluation has a stake in ensuring that evaluations deliver quality, credible and useful evaluations respecting provisions for impartiality as well as roles and accountabilities of various evaluation	Report finalization Dissemination	Receive comments and feedback on the draft report

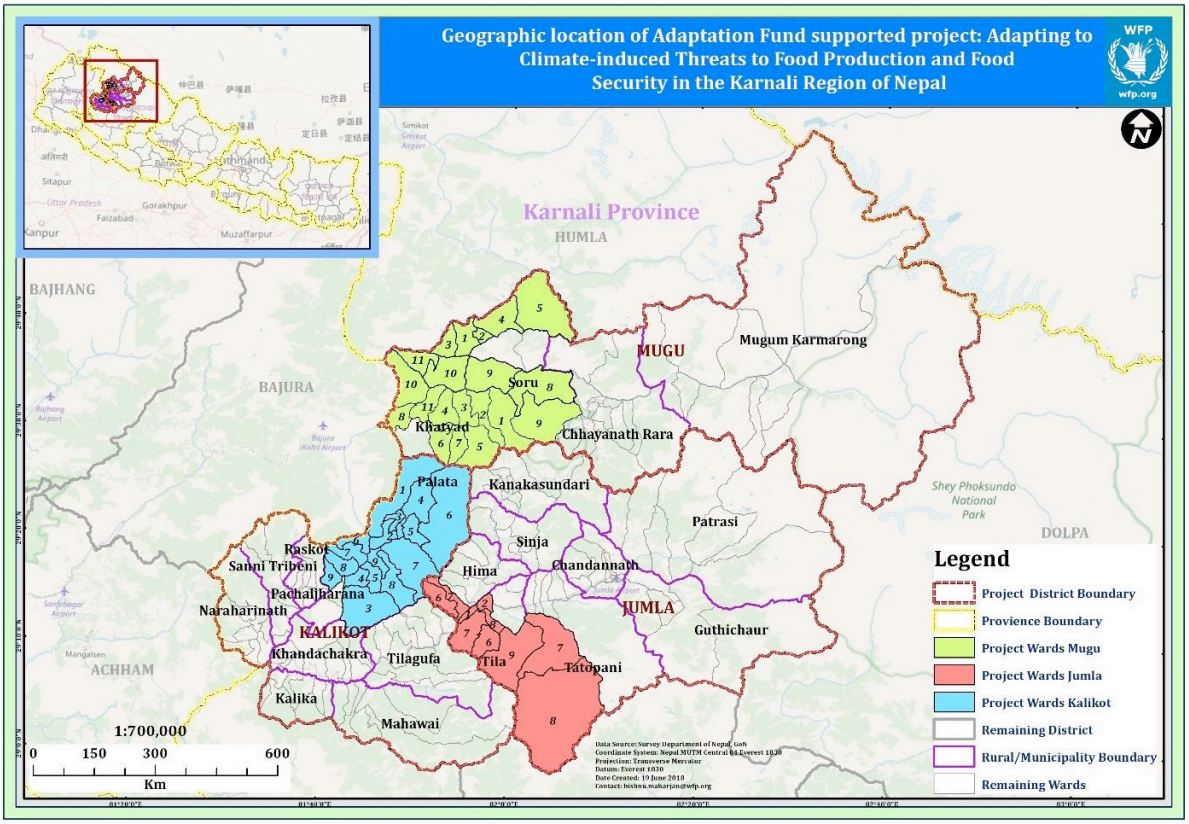
Stakeholders	Role in CAFS-Karnali	Interest and involvement in the evaluation	Stage to involve	Process/Mechanisms to involve
		stakeholders as identified in the evaluation policy. It may use the evaluation findings, as appropriate, to feed into centralized evaluations, evaluation syntheses or other learning products.		
WFP Executive Board (EB)		Primary stakeholder – the Executive Board provides final oversight of WFP programmes and guidance to programmes. The WFP governing body has an interest in being informed about the effectiveness of WFP programmes. This evaluation will not be presented to the Executive Board, but its findings may feed into thematic and/or regional syntheses and corporate learning processes.	Report finalization Dissemination	Receive comments and feedback on the draft report
External stakeholders				
Beneficiaries	Target group/own the project results, continue/sustain good results	As the ultimate recipients of project assistance, beneficiaries have a stake in WFP determining whether its assistance through CAFS-Karnali is appropriate and effective. As such, the level of participation in the evaluation of women, men, boys and girls from different groups will be determined and their respective perspectives will be sought.	Data collection	Engage in beneficiary survey Focus Group Discussions Interaction
Government	Executing and implementing agency an	MoFE, NAPA, Ministry of Industry, Tourism, Forest and Environment, NPSC, PSU have direct interest in knowing whether CAFS-Karnali are aligned with its priorities, harmonized with the action of other partners and meet the expected results. Issues related to capacity development, handover and sustainability will be of particular interest.	Data collection	Engage in Key Informant Interview Focus Group Discussions Participatory interactions and consultations

Stakeholders	Role in CAFS-Karnali	Interest and involvement in the evaluation	Stage to involve	Process/Mechanisms to involve
United Nations country team (UNCT)		The harmonized action of the UNCT should contribute to the realization of the government developmental objectives. It has therefore an interest in ensuring that WFP programmes are effective in contributing to the United Nations concerted efforts. Various agencies are also direct partners of WFP at policy and activity level.	Dissemination of results	Participation in workshops and meeting Experience sharing
Non-governmental organizations (PACE Nepal, RCDC, Herenda)	Grassroots level local partner of the WFP-Nepal country office for implementing assigned activities at the municipality level, mobilize LPCU, remain direct contact with the LG and project beneficiaries (mainly responsible for implementing activities through cash for assets.	NGOs are WFP partners for the implementation of some activities while at the same time having their own interventions. The results of the evaluation might affect future implementation modalities, strategic orientations and partnerships. They will be involved in using evaluation findings for programme implementation. Implementing partners; PACE Nepal for Jumla, RCDC for Mugu and HuRENDEC for Kalikot	Data and information collection	Collect data and information regarding project inputs (human resources, time, finance), activities, outputs, outcomes Key informant interview Interactions Guidance in field works
Donors	Resource leverage Avoid duplications. Coordination Experience sharing/good practices.	The donor has a direct interest in knowing whether their funds have been spent efficiently and if WFP's work has been effective and contributed to the AF strategies and programmes. The donor will use for accountability and learning purposes.	Dissemination	Workshop Meeting (Through WFP-Nepal Country Office)

Annex IV: Project Milestones

Milestones	Actual Date
Project approval	April 2015
SoP Preparation/Start of Implementation	October 2018
Inception Report/ Workshop	October 2018
Baseline Survey Completed (Report submission)	August 2020
Mid-term review	December 2021
Project Closing	October 2022
Final/Terminal Evaluation	October 2022

Annex V: Map, Project Location and Beneficiaries



Source: Project Inception Report, WFP 2018

Table 1: Program locations and beneficiaries

Province	District	Municipality and Wards	HHs	Male	Female	Total
Karnali	Mugu	Soru Rural Municipality (Wards 1, 2,3,4,5, 8, 9, 10 &11)	4 050	12 261	11 755	24 016
		Khatyad Rural Municipality Wards 1, 2,3,4,5, 7,8, 10 & 11)				
	Kalikot	Palata Rural Municipality (Wards 1, 2,3,4,5,6,7 8, 9)	4 140	12 948	12 597	25 545
		Pachaljharana Rural Municipality (Wards 3,4,5,6,7 8& 9)				
	Jumla	Tila Rural Municipality (Wards 1,2,6,7,8 & 9	2 660	8 249	7 989	16 238
		Tatopani Rural Municipality (Wards7 & 8)				
		Hima Rural Municipality (Wards6 &7)				
Grand total		7	10 850	33 458	32 341	65 799

Annex VI: Project Assumptions and their Prevalence

Assumptions	Prevalence/Compliance Analysis
Related to Objectives (a) Community development priorities and adaptation priorities are easily combined to one plan. (b) Current and immediate climate risks do not undermine planned improvements in production. (c) Livelihood diversification efforts are complemented by markets and technology.	(a) Community development priorities often supersede or overtake adaptation prioritizes if necessary. The priority of the local governments is community development, rather than adaptation. (b) Occurrence of climate disasters was apparently high, as observed from unusual heavy monsoon rains causing heavy landslides, floods and damages to the several infrastructures built by the project, particularly water mills, rehabilitation of micro-hydropower, community irrigation projects, and drinking water systems. (c) The assumption holds true. However, project made little efforts to benefit from these assumptions. Most of the project initiatives to support livelihoods diversifications were just completed but project period was too short to realize the benefits.
Related to Outcomes (a) All sections of community participate in identifying and designing risk reduction strategies (b) The prioritizing of adaptation options is free of elitist bias but have concurrence of all groups in the local government area. (c) Increased resilience of natural systems that support livelihoods to climate change induced stresses. (d) Ministries provide their fullest cooperation to the tasks identified. (e) Asset creation and production increase will result in greater incomes. (f) Increased income will reduce the need to engage in uncertain livelihoods	(a) The assumption is valid. The project has taken adequate measures and developed mechanisms to enable all sections of community to participate in identification and designing risk reduction strategies. (b) Finding and locating any elites in the poverty rampant districts of Karnali region is challenging and complicated tasks so difficult to make free from elitist bias. However, the project reports that vulnerability assessment criteria introduced by the project contributed to remove elitist bias. (c) The project assumption that increased resilience of natural systems support livelihoods induces stress due to climate change. (d) MoFE, despite of frequent transfers of the government officials (National Project Director and National Project Manager) at the Climate Change Management Division have provided fullest cooperation to the tasks identified by the project. However, frequent transfers of incumbent authorities limited coordination and collaborations with the relevant ministries, e.g., MoALD, MoFAGA etc. at required. (e) Short project duration and rushes to complete physical construction did not allow the project to confirm that (i) asset creation and production increase will result in greater incomes, though short-term income was generated and (ii) increase income will reduce the need to uncertain livelihoods. Meanwhile, external challenges, specifically spread of global pandemic COVID-19 led the project to change its priorities to focus on physical infrastructure constructions to create short-term employment, and three elections that obstructed project activities- local, provincial and federal.
Outputs (g) Results dissemination ensures a greater profile for adaptation actions. (h) Local and regional media interest in covering adaptation lessons and best practices.	(a) Project was slow to disseminate results to ensure greater profile for adaptation. Project machineries were found heavily engaged to complete the physical construction. However, display boards placed at multiple locations including LG complexes have contributed to greater profile. (b) Frequent news and coverage in several national newspapers regarding the completion of physical infrastructures reveal that the project assumption that local and regional media are interested in covering adaptation lessons and best practices is valid.

Annex VII: Evaluation Matrix

1. RELEVANCY

Evaluation Question				Criteria
1. To what extent were the project results consistent with the goal, objectives, and strategic priorities of the AF, as well as the country priorities (local and national sustainable development plans, priorities, and policies, as well as to guidance from convention)?				Relevancy
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
1.1 To what extent the activity supported by CAFS-Karnali is relevant to local needs in improving resilience, reducing vulnerability, and increasing adaptive capacity against adverse effects of climate change?	Relevance of the intervention design to the needs and priorities of the most vulnerable groups	Desk review of the project documents and KII with the LCPs and LGs project and	Inception Report 2013 and CAFS Mid-term review report 2020 KII HH survey	Review of the project reports KII interview results and HH survey results
	Alignment with government, partners,	Desk review KIIs	Policy documents LCPs, WFP official	Desk review and empirical analytical method
	Alignment and coherence with WFP policies and donors' policies and interventions;	Desk review KIIs	Inception Report 2013 and CAFS Mid-term review report 2020 Data from KII Data from HH survey	Desk review and empirical analytical method

2. Effectiveness

Evaluation Question				Criteria
2 To what extent the CAFS-Karnali has achieved the intended outcome(s)? Did the extent of achievement differ among men and women participants?				Effectiveness
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
2.1 To what extent the project achieved all outputs and outcomes satisfactorily?	Project Indicators (outputs and outcomes) (See annex IX)	Secondary (Review of project performance reports, annual reports) and beneficiary survey	Nepal CAFS-PPR reports, PCU's Report	Review of the secondary reports and descriptive analysis of the beneficiary survey
2.2 To what extent the LCP have regularly recorded and acted on intended and un-intended consequences on	Project Indicators	Secondary (Review of project performance reports, annual	Nepal CAFS-PPR reports, PCU's Report	Review of the secondary reports and descriptive

project beneficiaries, including women and climate vulnerable households?		reports) and beneficiary survey		analysis of the beneficiary survey
	Factors influencing on achievement	Secondary (Review of project performance reports, annual reports) and beneficiary survey	Nepal CAFS-PPR reports, PCU's Report	Review of the secondary reports and descriptive analysis of the beneficiary survey
Data quality concerns	Output level progress computed from the project records. Validations carried out based on discussion with the respondents, field observation and survey findings.			

3. Efficiency

Evaluation Question				Criteria
3. To what extent were the project's objectives and components clear, practical, and feasible within its time frame?				Efficiency
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
3.1 How cost-effectively the project spent funds allocated to the different components of the projects to convert into results, in line with the timelines prior planned and agreed?	% of budget spent by project's key components	Review of financial details provided by the PCU	Data from PCU's financial reports	Analysis of the fund/budget spent on HRs, large scale infrastructure development, enterprise development and capacity building of the beneficiaries, and local implementing partners
3.2 How far partnership arrangements and clarity of role and responsibilities among partners contributed to the project objectives/ outcomes?	Partnership arrangement Mechanisms and Processes	KII with LGs and LCPs	Data from KIIs	Descriptive analysis
Data Quality concerns:	Computed based on the project progress report)			

4. Gender Equality and Empowerment of Women

Evaluation Question				Criteria
4. To what extent the CAFS-Karnali project addressed GEEW in design, implementation and monitoring?				GEWE
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
4.1 To what extent did the CAFS design and implementation contributed or (not) to the AF/WFP goal of gender equality and national gender policies and strategies?	Participants' perception on the contribution of the project (Adequate, Partial and none) Beneficiaries who say they have been adequately targeted and had equitable role in project activities.	KII with PCU, LCPs and LGs Review of Project Documents and Project reports Beneficiary survey	Data from KII Project documents MTR	Report analysis and analysis of evidence, and triangulation with the results of the beneficiary survey
Data Quality concerns	Gender disaggregated data are not available in the BLS. Validating data has been one of the key concerns			

5. Impact

Evaluation Question				Criteria
5. To what extent does the project contribute to increasing the resilience of communities vulnerable to climate change?				Impact
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
5.1 To what extent did the project contribute to increasing the resilience of communities vulnerable to climate change	Short term impacts Medium term impact Long term impact	Household survey FGDs	Data from household survey	Descriptive analysis Narrative analysis
5.2 To what extent CAFS-Karnali's influence could be observed in neighbouring areas or other wards not reached by the project in the same RM.	Capacity to adapt negative climate change impacts/risks	KII with LGs and LCPs	Data from KII	Descriptive analysis Narrative analysis
Data Quality concerns	Construction of most of the physical infrastructure were just completed at the time of data collection and were yet to be handed over. Therefore, impact related findings are indicative.			

6. Coherence

Evaluation Question				Criteria
6. How well does the CAFS-Karnali intervention (two components) fits with other interventions implemented in Karnali region, with other WFP interventions and national climate change policy and national adaptation plan?				Coherence
Sub-questions	Indicators	Data collection methods	Sources of data/information	Data analysis methods/ triangulation
6.1To what extent project interventions complements programs of government, WFP and other project working in the region	Extent of synergy with other similar interventions	Review of enterprise reports	LCPs' reports (2019, 2020, 2021 and 2022)	Review of LCPs' reports

7. Sustainability

Evaluation Question				Criteria
7. What is the likelihood that the results of the project (increased resilience, increased adaptive capacity etc.) will be sustainable after termination of external assistance?				Sustainability
Sub-questions	Indicators	Data collection methods	Sources of data/ information	Data analysis methods/ triangulation
7.1 To what extent systems and/or mechanisms built by the project (CAFS-Karnali's key interventions) will remain/be continued beyond the life of the project? What are the evidence of government's ownership of project activities and achievements?	Financial and economic risks and assumptions Socio-political risks and assumptions Institutional framework and governance risks and assumption Environmental risks and assumptions Uncertainties on climate change Impacts—baselines (including reference and adaptation scenarios)	KIIs Desk review	Data from KIIs Desk review	Exploratory analysis and triangulation
	Ownership of government	KIIs Desk review	Data from KIIs Desk review	Exploratory analysis and triangulation

Annex VIII: Evaluation Timeline

Activities/Month Week	October				November				December				January				February/ March				April/ May				June/ July			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Inception phase (October-November 2022)																												
1.1 Team Orientation																												
1.2 Desk review																												
1.3 Draft Inception Report																												
1.4 Inception Workshop																												
1.5 Finalization of Inception Report																												
II. Data Collection Phase (November-December 2022)																												
2.1 Training to enumerators																												
2.2 Evaluation field work																												
2.3 Present end of field work debriefing																												
III. Data Analysis and Reporting phase (November 2022- February 2023)																												
Data analysis and report preparation submission)																												
Quality assurance of draft evaluation report																												
Incorporate the feedback received on evaluation report																												
Submission of final Evaluation Report and Evaluation Brief (D2)																												
Preparation for dissemination workshop																												
Dissemination workshop																												

Note: This work plan presents activities after the award of the contract.

Annex IX: Evaluation Methodology

1. Generic Approach

Mix Method Approach focused on Evaluation Matrix: The main analytical framework is the evaluation matrix (Annex VII) which maps the evaluation questions against the evaluation methods, indicators or/and lines of inquiry, data collection tools and sources of information. As seen in the evaluation framework, key evaluation questions have been broken down into sub-questions and for each one and specified the data collection method, data sources and analysis methods as well. As seen in the matrix, this evaluation follows a mix-method approach comprised of quantitative and qualitative data collection methods. In addition, the evaluation accorded a high priority to secondary sources of information, but from reliable and accountable sources only. The evaluation has collected evidence against any perceptual or judgmental responses.

Evaluation questions to remain guided by project's theory of change: The evaluation questions were drawn from the project reconstructed Theory of Change (ToC). This ensures specificity to the context and the intervention.

Use of CAPI method in beneficiary survey. For beneficiary survey, respondents were selected randomly based on the following sampling strategy and interviewed in person through computer assisted personal interview (CAPI) method.

Ensuring Consistency with Other studies of the project: WFP had conducted a rigorous baseline survey, CSP outcome monitoring, CAFS-Karnali midterm review, process monitoring and GIA during the project period. The evaluation follows the evaluation methodology both the quantitative and qualitative approaches including the sampling methodology as used in the baseline survey to make the findings of the baseline and final evaluation results comparable for coherency. In addition, the evaluation had carried out FGDs and KIIs for the validation of findings.

Triangulation. Given that this evaluation uses multiple and mixed methods to collect data and information required for the evaluation, the evaluation gave high priority in triangulation of responses (specifically perceptual data) with evidence from the field and review of reliable data and information and reports of the published by the governments (federal, provincial, and local), UN agencies, PCU and LCPs. No data and information from unpublished or unreliable sources were used. However, direct observations of the evaluation team and/or documentary data prevail. Through triangulation, the team intends to counteract the interests or biases found in any one data source.

Gender and wider equity issues fully considered: The evaluation ensures consideration of gender and wider equity issues and the diversity of the stakeholders.

Survey Design:

Quantitative data collection and analysis were carried for those indicators requiring survey.

Sampling universe (Population): The sample universe consists of households living in the project area. The CAFS-Karnali project was implemented in seven rural municipalities of three mountain districts of Karnali province – Hima, Tatopani and Tila municipalities of Jumla district; Pachalharna and Palata municipalities of Kalikot district; and Khatyad and Soru municipalities of Mugu district. It planned to reach 10,850 climate vulnerable poor households (about 65,800 people).

Table 1: Municipal wards covered, and households benefitted from CAFS-Karnali

District	Municipalities	Intervention wards		Total households planned to be reached
		Total	Ward numbers	
Jumla	Tila	6	1,2,6,7,8 & 9	2,660
	Tatopani	2	7 & 8	
	Hima	2	6 &7	
Kalikot	Palata	9	1, 2,3,4,5,6,7 8, 9	4,140
	Pachalharna	7	3,4,5,6,7 8& 9	
Mugu	Soru	9	1, 2,3,4,5, 8, 9, 10 &11	4,050
	Khatyad	9	1, 2,3,4,5, 7,8, 10 & 11	
Total	7	44		10,850

Source: Project Document

Sampling Design[121]: A cluster sampling was used considering large geographical area. The combination of minimal information requirements and logistical ease made it particularly well suited. It saves time and resources/time but increases the sample size. Applying cluster sampling requires two distinct steps: defining clusters and assembling the sampling frame (step 1) and selecting clusters and households for inclusion in the sample (step 2). This sampling methods had been proposed in consistent with the baseline survey of the CAFS-Karnali project.

- Defining cluster: A cluster is simply an aggregation of households that can be clearly and unambiguously defined. The cluster can be a village, block, town, settlement, or group that contains a relatively small and uniform number of households. The study considers wards as the cluster in consistent with the baseline survey.

- Households/Respondents: Households living in the project sites are the beneficiaries along with the women members. Hence the study randomly selected the households from the clusters for the interview. In addition to this, one women member was also interviewed from each household to understand perception of women on different CAFS-Karnali project indicators that required to understand women perception.

Sample Size is based on minimizing sampling error and maximizing sample performance to ensure precision and generalization of the survey results. A population characteristic should be known to define the sample size, including estimates of key indicators or areas of interest and the desired degree of precision. In the absence of this information, the study used the following formula to calculate the sample size, for "*two-stage cluster sampling.*"

$$n = [\{N. (z\alpha/2)2. r(1-r)\} \div \{\varepsilon 2 (N-1) + (z\alpha/2)2. r(1-r)\}] \times [DE \div RR],$$

Where,
r = Anticipated proportion in the population (taken as 0.5).
α = Significance level, chosen as 0.05 for 95% confidence interval.
ε = Acceptable margin of error, taken as 0.05.
RR = Response rate, taken to be 0.9.
DE = Design effect, taken as 1.5; and
N = Total population = 10,850

Sampling strategy: The primary beneficiary of the project were the residents of the municipalities and women members. The study will follow following sampling strategies.

Step I – Distribution of sample size by municipalities based on population probability to size: Like baseline survey, this evaluation team conducted survey in all seven municipalities, where CAFS-Karnali was

[121] WFP. 2004. Thematic Analysis: Sampling Guidelines for Vulnerability Analysis. World Food Programme. Rome

implemented. The evaluation divided required sample size by each partner municipalities based on population probability to size of the households. Table 1 presents the number of households planned for survey by each municipality.

Table 1. Distribution of sample size by rural municipalities

Rural Municipalities	Distribution of Sample size		Proposed wards (Number)		Revised sample size (HHs)
	Proportion	Number (HHs)	Estimated	Revised	
Tila	0.13	81.0	2.3	3	105
Tatopani	0.07	43.7	1.2	2	70
Hima	0.05	29.2	0.8	1	35
Palata	0.23	141.2	4.0	4	140
Pachaljharna	0.15	93.2	2.7	3	105
Soru	0.15	94.1	2.7	3	105
Khatyad	0.22	135.6	3.9	4	140
Total	1.00	618.0	17.7	20	700

Step II – Number of wards to be selected for survey: The baseline survey of the CAFS-Karnali had taken 35[122] households from each ward, i.e., clusters. Final evaluation also adhered to this number. Aiming to estimate the number of wards for final evaluation, the team divided required sample size of each municipality by the cluster size (i.e., 35 households). Hence, a total of 17.7 wards should be visited to meet the sample size. As the number of wards to be surveyed appear in the proportion, upward adjust was made, and fraction was converted into the nearest whole number. This further increased the number of wards for survey. Hence, the evaluation team selected 20 wards randomly for the survey although baseline survey covered 15 wards. The rounded-up number of wards was multiplied by cluster size. This resulted the sample size of 700 households (see table 1 below). After selection of the wards, three settlements from each ward were selected randomly depending upon the number of households and geographical spread given the time and resource constraints. Table 2 presents wards surveyed for the purpose of this evaluation.

Table 2: Selected ward for survey

District	Municipalities	Intervention wards		Sample wards	
		Total	Ward numbers	Required	Ward number
Jumla	Tila	6	1,2,6,7,8 & 9	3	6, 2 & 8
	Tatopani	2	7 & 8	2	7 & 8
	Hima	2	6 &7	1	7
Kalikot	Palata	9	1, 2,3,4,5,6,7 8, 9	4	2, 3, 9, 7
	Pachalharna	7	3,4,5,6,7 8& 9	3	4, 7, 8
Mugu	Soru	9	1, 2,3,4,5, 8, 9, 10 &11	3	1, 9,10
	Khatyad	9	1, 2,3,4,5, 7,8, 10 & 11	4	1,3, 7, 11
Total	7	44		20	

Step III – Selection of the households: In each of the selected ward, the evaluation team first listed all households through the list of households available in the vulnerability ranking, which was further updated based on interaction with the local communities. This was used as the sampling frame for selection of the households. In the next step, 12 households were randomly selected from each settlement (as applicable) with the help random tables. Hence a total sample from each ward was estimated at 36 households.

Step IV – Selection of the respondents: Review of the CAFS-Karnali indicators reveals that information must be collected at the household level as well as with the women respondents, especially on awareness of climate change, operation of the micro-enterprises etc. Considering this, the evaluation first interviewed with the adult members (above 18 years) for collecting household level information. Priority was given to select

[122] New ERA. 2020. Baseline Survey of Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal Project (CAFS-Karnali). New ERA. Kathmandu, Nepal

households head or elderly members as available. In addition to this, adult women members of the households were also interviewed to collect information that required survey of women.

Table 3: Distribution of sample size by municipalities

Rural Municipalities	Adult members	Women respondents
Hima	36	36
Khatyad	144	144
Pachaljharna	108	108
Palata	144	144
Soru	108	108
Tatopani	72	72
Tila	108	108
Total	720	720

Qualitative interview

Key Informant Interviews: KII were conducted individually in a very friendly and participatory manner. Depending on the time availability, Key issues to be discussed during the FGDs and Key Informant Interviews will be guided by (a) type of participants/respondents (b) nature and results of activity/projects supported by the project (c) duration of the project and (d) engagement of local governments, and other relevant issues. Table 4 below shows estimated number of KIIs.

Table 4: Number of key informants interviewed.

SN	Agency	Level	Type	Role	Number
1	MoFE- CCMD and PSU	Federal	Government	Overall execution, coordination, guidance	5
2	WFP		Development Partner/UN Agency		
2.1	WFP-CO	Country		Execution, Management Entity, Implementation	5
2.2	Sub-office	Sub-national		Supervision, Monitoring and Evaluation Coordination	2
2.3	Field Office	Field/district		Coordination	3
3	MoITFE	Province		Supervision, Monitoring and Evaluation Coordination	2
4	Line Agencies	District	Government	Coordination, Technical backstopping, Resource Management, Experience sharing	4
4	MoLMAC	Province		Coordination, Resource Leverage, Experience sharing	2
5	Municipal Executive Office	Local		Coordination, Monitoring, Evaluation	7
6	Mayors/Chairpersons/ Deputies, Ward Chairpersons (Elected leaders)	Local	Government (Elected Leaders)	Coordination, Resource Leverage, Monitoring, Evaluation	38
	Municipal line agencies officials				16
7	WFP Local Cooperating partners	Local		Activity implementation	3

SN	Agency	Level	Type	Role	Number
8	NGOs/Projects (Mercy Crops, NCCSP)	Local		Coordination and experience	4
	Total				91

KIIs focus on interpreting quantitative data, understanding about the how and why of the quantitative findings, generate recommendations, understanding different perspectives, but guided by two key components of CAFS-Karnali.

Focus Group Discussions: FGDs focused on understanding how interventions have contributed to reduce vulnerability or improved their resilience. One focus group discussion in each ward and seven municipal level discuss were carried out representing nature of intervention and beneficiaries by municipalities.

SN	District	Municipality	Ward	Respondents		
				Total	Male	Female
1	Kalikot	Pachalharna	7	16	8	8
2	Kalikot	Pachalharna	8	12	8	4
3	Kalikot	Pachalharna	4	12	6	6
4	Kalikot	Pachalharna	4	9	2	7
5	Kalikot	Palata	7	14	11	3
6	Kalikot	Palata	9	10	2	8
7	Kalikot	Palata	3	10	9	1
8	Kalikot	Palata	1	11	7	4
9	Kalikot	Palata	2	8	7	1
10	Jumla	Tatopani	7	7	4	3
11	Jumla	Tila	2	13	8	5
12	Jumla	Tila	8	12	6	6
13	Jumla	Tila	1	8	3	5
14	Jumla	Tila	6	13	9	4
15	Jumla	Tatopani	7	9	4	5
16	Jumla	Tatopani	8	9	5	4
17	Jumla	Hima	6	7	4	3
18	Jumla	Hima	7	9	2	7
19	Mugu	Soru	2	9	4	5
20	Mugu	Soru	10	18	10	8
21	Mugu	Soru	1	12	8	4
22	Mugu	Soru	9	13	8	5
23	Mugu	Khatyad	4	9	2	7
24	Mugu	Khatyad	1	11	8	3
25	Mugu	Khatyad	11	14	14	0
26	Mugu	Khatyad	3	14	12	2
27	Mugu	Khatyad	7	10	3	7

.

Annex X: Data Collection Instruments

A. Quantitative survey

Household survey questionnaire

Namaste! My name is..... . I represent WFP while I am not its employee. I have been assigned by an independent organization NARMA to collect data and information in connection to the final evaluation of "CAFS-Karnali Project" which was implemented by WFP commissioning local cooperating partner.... Your household is one of over 700 households selected from 7 partner municipalities of Jumla, Kalikot and Mugu districts, Karnali province through a random selection process.

As part of this evaluation, we want to ask you some questions related to diverse topics including, socio-economic status, income and expenditure, social assistance, agricultural practices, household food security, community participation,

We would like to humbly invite you to participate. We value your opinion and there are no wrong answers to the questions we will be asking in the interview. We may need your approximately 30-minute time.

Meanwhile, we would like to assure you that there will be no risk to you as a result of your participation in this task. Your participation in this study is fully voluntary. You are free to withdraw your consent and discontinue the interview at any time. We would not ask you the reasons.

The information given by you will be strictly treated as confidential and will be used only for the study. The information that is collected will help WFP/government to assess the effectiveness of their ongoing programs, change the program modality as per the need, and bring appropriate new programs in the future. Your responses will not be linked with your name/address and these questionnaires will be destroyed once all the study is completed. Your participation will be highly appreciated.

Are you willing to participate in the study? 1. Yes 2. No

A. RESPONDENT CHARACTERSTICS

SN	Question	Answer
1	ID (Auto generated)	
2	District	
3	Municipality	
4	Ward Number	
5	Village/Settlement	
6	Enumerator name	
7	Name of HHs head (LAPA document)	(To be collected)
7.1	Serial number (LAPA document)	
7.2	Vulnerability category (LAPA document)	1 2 3 4
8	Name of HHs head (Sampling frame)	
8.1	Serial number (Sampling frame)	
9	Name of respondent	
9.1	Sex	Male .....1 Female.....2 Others 3
9.2	Educational status of respondent	Can count only .....1 Read and write .....2 Primary schooling.....3 Lower secondary.....4 Secondary .....5 10- plus 2 .....6 Graduate and above.....7
9.3	Age	
9.4	Ethnicity	Dalit .....1 Janajati.....2 Brahmin/Chettri .....3 Others (specify).....4
9.5	Contact number	
10	HH Head	Male .....1 Female.....2
11	Primary source of income of the household (Based on contribution to annual HH income)	Agriculture .....1 Business.....2 Service.....3 Agriculture Wage labour .....4 Wage labour (other than agriculture).....5 Small/cottage industry .....6 Occupational work (caste specific) .....7 Contractor.....8 Remittance (Elsewhere other than Nepal).....9 Seasonal migration (Within Nepal) .....10 Others Specify.....11
12	Family size	SN / Total / Male / / Female / /

B. AWARE OF PREDICTED CLIMATE CHANGE IMPACTS AND APPROPRIATE RESPONSES

SN	QUESTIONS	ANSWERS	SKIP
1	Have you heard about the climate change?	Yes.....1 No 2	If 2 skip to 3
2	What is your main source of information about climate change? Maximum three responses	CAFS-Karnali/Partner NGOs officials .....1 Family member .....2 Neighbour/friends .....3 Government agencies/officials .....4 Newspaper.....5 Radio/televisions.....6 Participating in awareness programs .....7 Other NGOs officials .....8 Other specify 9	

3	Which of the following are the climate change impacts? (Don't probe)	Yes	No
1	Increase in temperature/heat	1	2
2	Increase in number of hot days	1	2
3	Integrated nutrient management	1	2
4	Increase in number of rainy days	1	2
5	Decrease in monsoon days	1	2
6	Erratic rainfall (untimely/little)	1	2
7	Rapid snow melting	1	2
8	Increase incidence of snow fall	1	2
9	Other specify	1	2
4	What are extreme climate events that you faced/observed in your villages/locality in last three years? (Don't probe)	Yes	No
1	Drought	1	2
2	Heat wave	1	2
3	Cold wave	1	2
4	Extreme heat	1	2
5	Extreme cold	1	2
6	Landslide	1	2
7	Flood	1	2
8	Drying of natural springs/Poor water availability	1	2
10	Fire (forest/settlement	1	2
11	Windstorm	1	2
12	Thunderstorm	1	2
13	Hailstorm	1	2
14	Other specify	1	2
15	Other specify	1	2
5	What are impacts of above extreme climatic events to your households or the communities? (Don't probe)	Yes	No
1	Pests & diseases problems in crops	1	2
2	Decrease crop production/productivity	1	2
3	Crop loss/failure	1	2
4	Food shortage/scarcity	1	2
5	Loss of forest cover/forest degradation	1	2
6	Death/Injury of wildlife	1	2
7	Livestock diseases	1	2
8	Health problems (Children/Adult)	1	2
10	Drinking water shortage/scarcity/pollution	1	2
11	Water scarcity for farming	1	2
12	Spread of invasive species	1	2
13	Land degradation (Sedimentation/soil debris)	1	2
14	Loss/damage of property/houses/sheds	1	2

SN	QUESTIONS	ANSWERS		SKIP
15	Loss of land		1	2
16	Damage of infrastructure (irrigation, water supply)		1	2
17	Death of family members			
18	Other specify		1	2
6	Has your HH undertaken any adaptation measure to respond to the negative impacts of CC?	Yes.....1 No 2		If 2 skip to C
7	If yes, what adaptation measures has your HHs undertaken to respond??		Yes	No
1	Cultivating/harvesting crop relying/based on weather forecast		1	2
2	Integrated pest management		1	2
3	Integrated nutrient management		1	2
4	Changes of crop varieties/seeds		1	2
5	Cultivation of local varieties/land races		1	2
6	Crop insurance		1	2
7	Mulching (Plastics/crop residues)		1	2
8	Crop rotation		1	2
10	Organic farming		1	2
11	Increase use of farmyard manure/		1	2
12	Follow agro-advisory (Cropping calendar/weather information)		1	2
13	Tillage farming (Zero/minimum)		1	2
14	Agroforestry practices (Alley cropping, trees plantation)		1	2
15	Fruit Orchards/private forests (Fruit/fodder/firewood)		1	2
16	Local land race conservation		1	2
17	Drought resistant varieties cultivation			
18	Integrated livestock management (Fodder and forage, feeding trough		1	2
19	Livestock insurance		1	2
20	Medical treatments of livestock/Extension services from Agro-vets/Palika		1	2
21	Multiple water use (rainwater harvesting/wastewater collection/tap water use)		1	2
22	Water efficient practices (Drip/micro irrigation)		1	2
23	Water augmentation structure construction (Pond, irrigation canal construction, water storage tanks)		1	2
24	Soil and water conservation (Check dams/gully control)		1	2
25	Community infrastructure construction, repair and maintenance (drinking water, irrigation and storage facilities)		1	2
26	Use of storage facilities		1	2
27	Improvement of storage practices (Rustic stores)		1	2
28	Tunnel Farming		1	2
29	Changes in agricultural occupation/livelihood activities (from farming to another sector)		1	2
30	Migration of family members for employment		1	2
31	Working for temporary employment (farm and non-farm wage)		1	2
32	Forest fire control /Fire fighting		1	2
33	Operation of business /non-farm related activities		1	2
34	Business/marketing of agricultural produce			
35	Medical treatments / health facility visits		1	2
36	Medical/health insurance/life insurance			
37	Property insurance (House, land, cattle shed)			
38	Improved soil management techniques (contour drains, bunds, terracing)			
39	Improved cooking stoves			
40	Other Specify			

SN	QUESTIONS	ANSWERS	SKIP
8	How CAFS-Karnali support has contributed on your household's adaptation capacity to respond negative impacts of climate change?	Increased ..... 1 Similar ..... 2 Decreased ..... 3 No idea/don't know 4	If 2 and 4 skip to C

C. ACCESS TO LIVELIHOOD ASSETS

C.1: Capacity building

SN	QUESTIONS	ANSWERS	SKIP
1	Have your or your family member participated in climate related orientation / observation tours?	Yes .....1 No 2	If no skip to 3
2	Who participated	Men .....1 Women.....2	
3	Have your family member had received training related climate adaptation in past three years?	Yes .....1 No 2	If no skip to C.2
4	If yes, number of persons trained	Male Female	
5	If yes, who organized the training? (Do not probe)	CAFS-Karnali/Partner NGOs ..... 1 Farmer groups/cooperatives ..... 2 Government officials..... 3 Other NGOs officials ..... 4 Local government officials ..... 4 Agro vets/Business company..... 5 No idea/Don't know..... 6 Other specify 7	
6	Key areas of training (Do not probe)	Integrated crop management (Weather information, crop cycle, rotation) ..... 1 Integrated pest management ..... 2 Organic farming/soil health management 3 Water management/multiple water use ... 4 Agroforestry practices ..... 5 Soil and water conservation ..... 6 Irrigation management ..... 7 Tillage farming..... 8 Integrated livestock management ..... 9 Agriculture inputs management ..... 10 Agricultural insurance schemes ..... 11 Cold storage/Storage practices..... 12 Ago-advisory system..... 13 Local land race conservation ..... 14 Enterprise development/Income generating ..... 15 Value addition and processing ..... 16 Drought tolerant farming ..... 17 Off-season vegetables/Tunnel Farming..... ..... 18 Other specify 19	
7	Are training useful to your farming?	Yes .....1 No 2	
8	Give reasons		

9	Have you or your family member practiced learned skills?	Yes .....1 No 2	If yes skip to C
10	If no, reasons for not practicing learned skills? Maximum three responses	Time consuming/labour intensive..... 1 Limited skills/knowledge ..... 2 Not economical/expensive..... 3 Not suitable to local condition ..... 4 Costly/Expensive..... 5 Migration of trained person..... 6 Labour shortage/Few family members .... 7 No specific reasons/Not interested ..... 8 Others (specify)..... 9	

C.2: Finance (Access to Financial Institution)

SN	QUESTIONS	ANSWERS	SKIP
1	Is there any financial institution (Bank, Finance Company, Cooperatives, and Microfinance etc.) in your municipality?	Yes..... 1 No ..... 2 Don't know..... 3	If 2&3 skip to C.2
2	Do you or your household member have an account in a financial institution (can be beyond the ward)	Yes..... 1 No ..... 2 Don't know..... 3	If 2&3 skip to C.2
3	Who have a bank account?	Men..... 1 Women ..... 2 Both 3	
4	When did you/your family members open your first account?	..... Year	
5	Why did you or family members open account in financial institutions? (Two main Reponses)	Receive wage from CAFS-Karnali..... 1 Remittance purpose ..... 2 Receive payment (salary/wage)..... 3 Saving/security ..... 4 Take loan/loan purpose..... 5 Others specify 6	
6	How frequently do you use the financial institution?	Several times a month..... 1 About once a month ..... 2 Less than once a month ..... 3 Rarely (to receive CASF-Karnali payment)..... 4	
7	How much time you have to travel to reach to the nearest financial institutions?	------ hours (include both public transport and walk)	
8	How the CAFS-Karnali support has contributed on your household's access to financial institutions?	Increased..... 1 Similar..... 2 Decreased ..... 3 No idea/don't know 4	

C.3: Social Capital (Networks/Membership)

SN	QUESTIONS	ANSWERS	SKIP
1	Are you aware of LAPA plan prepared in your municipality?	Yes .....1 No.....2	If 2 skip to 4
2	Have you or your family member participated in LAPA plan preparation?	Yes .....1 No.....2 Don't know 3	If 2&3 skip to 4

SN	QUESTIONS	ANSWERS	SKIP
3	If yes, who participated from your households?	Men .....1 Women .....2 Both.....3	
4	Are there any networks or groups formed or supported for "responding" to climate change related impacts in your village/settlement? e.g., income generating, drinking water, irrigation canal management, forest management etc.?	Yes .....1 No.....2 Don't know 3	If 2&3 skip to 7
5	Have your family members obtained membership in these groups?	Yes ..... 1 No..... 2	f 2 skip to 8
6	If yes, who had obtained membership in those groups?	Men .....1 Women .....2 Both.....3	
7	If any one of the family members had obtained leadership position in those group (Chair, vice chair, secretary, treasurer)	Yes ..... 1 No..... 2 Don't know 3	
8	Have you joined any new community groups as a result of the CAFS-Karnali support?	Yes ..... 1 No..... 2 Don't know 3	If 2&3 skip to 9
8.1	Specify group		
9	How the CAFS-Karnali has contributed on your household's access to community institutions?	Increased.....1 Similar.....2 Decreased .....3 No idea/don't know.....4	

C.4: Physical Capital (Community infrastructure)

SN	QUESTIONS	ANSWERS	SKIP
1	What are rural community infrastructure that exists in your village/community?	Irrigation system (canal).....1 Irrigation system (MUS/Ponds/Tank/Dip tank).....2 Drinking water system .....3 Cold storage facilities .....4 Collection centre .....5 Soil conservation structures (check dams) .....6 Bioengineering/Riverbank .....7 Processing Centre/Collection centre (NTFPs) .....8 Micro-hydro/Hydro power .....9 Improved water mills.....10 Rustic stores .....11 Nursery.....12 Seed bank .....13 No idea/Don't know .....14 Solar powered community service centre .....15 Improved water mills.....16 Agriculture farm fencing .....17 Others specify 18	
2	Is any new infrastructure constructed in your locality due to CAFS-K support?	Yes.....1 No .....2 Don't know.....3	If 2&3 skip to C.4
3	If yes, which infrastructure were constructed because of the CAFS-Karnali support?	Irrigation system (canal).....1 Irrigation system (MUS/Ponds/Tank/Dip tank).....2 Drinking water system 3	

		Cold storage facilities .....4 Collection centre .....5 Soil conservation structures (check dams) .....6 Bioengineering/Riverbank .....7 Processing Centre/Collection centre (NTFPs) .....8 Micro-hydro/Hydro power .....9 Improved water mills.....10 Rustic stores .....11 Nursery.....12 Seed bank .....13 No idea/Don't know .....14 Solar powered community service centre .....15 Improved water mills.....16 Agriculture farm fencing .....17 Others specify 18	
4	Have you or your family members benefited from above infrastructure?	Yes.....1 No .....2 Don't know.....3	If 2&3 skip to 5
4.1	Specify how		
5	Who have been mostly benefited from these infrastructures?	Men.....1 Women.....2 Both 3	
5.1	Have you or any of your household member participated in any such asset creating activities?	Yes.....1 No .....2 Don't know.....3	If 2&3 skip to 7
5.2	If yes, how many days did your family household work in the last 12 months?	Men Women	
5.3	What is the mode of the transfer for participating in these activities? (Only one answer)	Cash/Bank transfer.....1 Cash/direct payment .....1 Voucher .....2 Food/Ration .....3 None .....4 Don't know.....5	
6	What is the total amount of incentive/ wage/ paid for the work?	NRs	Provide approximate amount
7	How CAFS-Karnali has contributed on improvement of physical infrastructure?	Increased.....1 Similar.....2 Decreased.....3	If 2 skip to C.5

C.5 Assets Benefit Indicators

SN	QUESTIONS	ANSWERS	SKIP
1	Do you think that the assets that were built or rehabilitated in your community are better protecting your household, its belongings and its production capacities (fields, equipment, etc.) from floods / drought / landslides / mudslides?	Yes ..... 1 No ..... 2 Not applicable..... 3	
2	Do you think that the assets that were built or rehabilitated in your community have allowed your household to increase or diversify its production (agriculture / livestock / other)?	Yes ..... 1 No ..... 2 Not applicable..... 3	
3	Do you think that the assets that were built or rehabilitated in your community have decreased the day-to-day hardship and released time for any of your family members (including women and children)?	Yes ..... 1 No ..... 2 Not applicable..... 3	
4	Do you think that the assets that were built or rehabilitated in your community have improved the ability of any of your household member to access markets and/or basic services (water, sanitation, health, education, etc.)?	Yes ..... 1 No ..... 2 Not applicable..... 3	
5	Do you think that the trainings and other support provided in your community have improved your household's ability to manage and maintain assets?	Yes ..... 1 No ..... 2 Not applicable..... 3	
6	Do you think that the assets that were built or rehabilitated in your community have improved your natural environment (for example more vegetal cover, water table increased, less erosion, etc.)?	Yes ..... 1 No ..... 2 Not applicable..... 3	
7	Do you think that the works undertaken in your community have restored your ability to access and/or use basic asset functionalities?	Yes ..... 1 No ..... 2 Not applicable.....	
8	Do you think that the works undertaken in your community have helped the households increase their income?	Yes ..... 1 No ..... 2 Not applicable..... 3	

D. NATURAL ASSETS (Water and Forests)

D. 1 Drinking Water

SN	QUESTIONS	ANSWERS	SKIP
1	Main source of drinking water Note: only one response	Tap (Private/Public) ..... 1 Protected Spring/well/ ..... 2 Protected Pond/water hole ..... 3 Stream/River ..... 4 Pond/water hole ..... 5 Stone tap/Dhara ..... 6 Others specify 7	
2	How long does it take to go to the drinking water source, get water, and come back?	..... min	
3	Has CAFS-Karnali supported on improving drinking water related infrastructure in your village?	Yes ..... 1 No ..... 2 No Idea/Don 't know 3	If No, go to D 2

SN	QUESTIONS	ANSWERS	SKIP
4	If yes, on what they supported?	Tap (Private/Public) .....1 Protected Spring/well/ .....2 Protected Pond/water hole .....3 Stream/River .....4 Pond/water hole .....5 Stone tap/Dhara .....6 Others specify 7	
5	Is drinking water available throughout the year?	Only in the dry season .....1 Only in the rainy season .....2 All the year round.....3	
6	Has travel time taken to collect drinking water has changed?	Takes shorter time .....1 No change in time .....2 Takes longer time 3	
7	What drinking water availability changes in the past years?	Improved .....1 No change .....2 Decreased.....3 No idea/Don't know.....4	
8	What has been the quality of drinking water facility changes in the past years?	Improved .....1 No change .....2 Decreased.....3 No idea/Don't know.....4	
9	Is the supply of drinking water sufficient for your household	Yes .....1 No 2	
10	How CAFS-Karnali support has contributed on improving drinking water?	Increased .....1 Similar .....2 Decreased.....3 No Idea/Don 't know 4	

D.2 Irrigation Status

	Unit (Ropani)	House yard	Fully surface irrigation (Whole year)	Seasonal surface irrigation (Seasonal)	Un-irrigated (Rainfed)	Forest/ Pasture/
Family owned						
Rented out						

SN	QUESTIONS	ANSWERS	SKIP
1	Main source of irrigation Note: Three main response	Surface irrigation (Canal).....1 Ground water (Boring/pump) .....2 Water lifting from river (solar/electricity) .....3 Pond/Water tank (Soil/Cement tank).....4 Piped water (Drinking water system).....5 Treadle pump .....6 Rainwater harvesting structures .....7 Water lifting (Diesel Pump set) .....8 Other specify 9	
2	Is any new surface irrigation canal constructed or repaired in in your village to improve distribution of water?	Yes.....1 No 2	If 2 go to D 3

SN	QUESTIONS	ANSWERS	SKIP
3	Have your household used those irrigation canal?	Yes .....1 **No 2**	If 2 go to D 3
4	Do you use surface irrigation water all year or only part of the year?	Only in the dry season.....1 Only in the rainy season .....2 All year round 3	
5	Has water availability for irrigation changes in the past years?	Improved.....1 No change .....2 Decreased .....3 No idea/Don't know 4	
6	Is the supply of water sufficient for your farm or getting as per your need?	Yes .....1 No.....2	
8	What is status of social dispute related to water use in your locality?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
9	Has cropping intensity changed after the CAFS-Karnali support?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
10	Has crop diversification changed after the CAFS-Karnali support?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
11	Has crop productivity changed after the CAFS-Karnali support?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
12	How the CAFS-Karnali has contributed on improving water supply for irrigation?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	

D.3 Multiple Water Use

SN	QUESTIONS	ANSWERS	SKIP
1	Do you collect/use kitchen wastewater for irrigation?	Yes .....1 No 2	If No go to 2
1.1	If yes, for what purposes?	Kitchen gardening .....1 Commercial vegetable farming.....2 Other specify 3	
1.2	Area irrigated?	..... Anna	
2	Are you using any of the water efficient technologies?	Drip irrigation.....1 Sprinkle irrigation .....2 No 3	If 2 go to 3
2.2	Area irrigated?	..... Anna	
3	Do you use tap water for irrigation purpose?	Yes .....1 No 2	If 2 go to 4
3.1	How often you use the tap for irrigation purpose?	Always .....1 Sometimes .....2 Never.....3	

SN	QUESTIONS	ANSWERS	SKIP
3.2	Area irrigated?	..... Anna	
4	Do you harvest/collect rainwater?	Yes .....1 No 2	If No go to 5
4.1	If yes, where do you reserve water?	Tank/water vessel (Ghampo).....1 Earthen pond/tank .....2 Cemented pond/tank.....3 Plastic pond/tank.....4 Other specify.....5	
4.2	What is the purpose of rainwater harvesting? (Two main response)	Ground water recharge.....1 Vegetable farming .....2 Drinking .....3 Household activities .....4 Livestock farming .....5 Other specify..... 6	
4.3	Area irrigated	..... Anna	
5	Have your HHs constructed a pond at your farm for irrigation?	Yes .....1 No 2	If No go to 6
5.1	What is the source of water? (Two main responses)	Tap water .....1 Rainwater.....2 Irrigation canal.....3 Pipe water (river/spring) .....4 Others Specify.....5	
5.2	How many ponds you have?		
5.3	Approximate area irrigated from these ponds?	..... Anna	
5.4	What is the purpose of constructing pond? (Two main response)	Ground water recharge.....1 Irrigation .....2 Drinking .....3 Household activities .....4 Livestock farming .....5 Other specify..... 6	
6	Are there any reservoir/pond in your village to collect water from springs or harvest rainwater?	Yes .....1 No .....2 No idea/don't know 3	If 2&3 go to 7
6.1	What is purpose of construction?	Ground water recharge.....1 Farming/agriculture .....2 Drinking .....3 Household activities .....4 Livestock farming .....5 Cultural/aesthetics/tourism .....6 Others specify .....7 No idea/don't know 8	
6.2	Have you used it?	Yes .....1 No 0	
6.3	If yes, approximate area irrigated by your family?	..... Anna	

SN	QUESTIONS	ANSWERS	SKIP
7	Are there any improved water mills in your villages?	Yes .....1 No .....2 No idea/Don 't know.....3	If 2&3 go to 8
7.1	If water from the improved water mills is used for irrigation purposes?	Yes .....1 No .....2 No idea/don't know 3	
7.2	If yes, area irrigated	..... Anna	
8	Are there any micro-hydro power plants in your villages?	Yes .....1 No .....2 No idea/Don 't know.....3	If 2&3 go to 8
8.1	If water from the micro-hydro power plant is used for irrigation?	Yes .....1 No .....2 No idea/Don't know..... 3	
8.2	If yes, area irrigated	..... Anna	
9	How CAFS-Karnali has contributed on improving access to MUS technologies?	Increased ..... 1 Similar .....2 Decreased..... 3 No Idea/Don't know..... 4	If 2&4 go to D.4

D.4 Households' Access to Forests Products

SN	QUESTIONS	ANSWERS	SKIP
Access to forest products			
1	Do you collect forest products?	Yes ..... 1 No 2	If No go to 8
2	If yes, which products you generally collect?		

SN	Forest products	Harvesting/ Collection during last year	Do you sell to the market?	If sold, specify income per year (NRs)
2.1	Timber	Yes.....1 No 2	Yes .....1 No 2	
2.2	Firewood	Yes.....1 No 2	Yes .....1 No 2	
2.3	Fodder	Yes.....1 No 2	Yes .....1 No 2	
2.4	Grasses	Yes.....1 No 2	Yes .....1 No 2	
2.5	Litter/	Yes.....1 No 2	Yes .....1 No 2	
2.6	Non timber forest products (Medicinal plants)	Yes.....1 No 2	Yes .....1 No 2	
2.7	Wild edible foods (Honey, fruits etc.)	Yes.....1 No 2	Yes .....1 No 2	
2.8	Other specify	Yes.....1 No 2	Yes .....1 No 2	

SN	QUESTIONS	ANSWERS	SKIP
3	From where you generally collect forest products for your HH needs? (Two main responses)	Community forests .....1 Leasehold Forest .....2 Religious forests .....3 Public land (forests) .....4 Government forests .....5 Private forests .....6 Farmland/Homestead .....7 Other specify	
4	Has the availability of forest products changed?	Increased .....1 Same .....2 Decrease 3	
5	If yes, what are the reasons for changed?		
6	How has CAFS-Karnali contributed on improving your HHs access to forest products?	Increased..... 1 Similar.....2 Decreased ..... 3 No Idea/Don't know 4	
		Litter use for improving soil fertility	
7	Do your family members collect litter/soil humus from the forest to apply in farmland?	Yes.....1 No 2	If No go to 14
8	How frequently you collect litter?	Regularly (Always) At least once in month..... 1 Occasionally (At least once in a three month) .....2 Rarely (Once in six months) 3	
9	Are you getting enough amount of humus/litter you desire to collect?	Yes.....1 No 2	
9.1	If No, why do you think you are not getting enough? (Select maximum of two major reasons)	Increased competition (people increased) .....1 Forest degraded .....2 Destruction due to fire .....3 Forest is far from others .....4 Access is reduced/denied.....5 Others (Specify) _____ 96	
10	Do you think adding humus/litter on the soil improves soil quality (more fertile, moisture loosened soil etc.) of your farmland?	Very much .....1 Somewhat .....2 Not at all 3	
11	How you rate the extent of litter/soil humus use from the forest in farmland compared to three years before?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
12	How CAFS-Karnali has contributed on use of the leaf litter/soil humus?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
		Farmyard Manure	
13	Do you collect bedding materials/litter for your livestock from the forest?	Yes.....1 No 2	If No go to D.5

SN	QUESTIONS	ANSWERS	SKIP
14	Are you getting enough amount of bedding material/ litter you desire to collect?	Yes .....1 No 2	
14.1	If no, why do you think you are not getting enough? (Select maximum of two major reasons)	Increased competition (people increased) .....1 Forest degraded .....2 Destruction due to fire .....3 Forest is far from others .....4 Access is reduced/denied.....5 Others (Specify) _____ 6	
15	Do you convert the remains (after using for the livestock) or bedding materials to compost afterwards?	Yes .....1 No 2	
16	If yes, do you think the compost improves the soil quality of your farmland?	Very much .....1 Somewhat .....2 Not at all 3	
17	How frequently you use compost in your land (owned and leased)	Regularly (Always) .....1 Frequently .....2 Sometimes .....3 None/Never.....4	
18	How you rate the extent of litter/bedding materials use from the forest for making compost compared to three years before?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	
19	How CAFS-Karnali has contributed on?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	

D.5 Status of Forest Resources

SN	QUESTIONS	ANSWERS	SKIP
1	Has forest cover (area under trees) changed in your nearby forests?	Yes ..... 1 No..... 2 No Idea/Don't know 3	
2	Has forest conditions (i.e., number of trees) changed in your nearby forests?	Yes ..... 1 No..... 2 No Idea/Don't know 3	
3	Has regeneration situation (i.e., number of small trees) changed in your nearby forests?	Yes ..... 1 No..... 2 No Idea/Don't know 3	
4	Has incidence of wildlife sighting including their population changed in your locality/including nearby forests?	Yes ..... 1 No..... 2 No Idea/Don't know 3	
5	Has plantation of trees in farmland/ (agro-forestry practices changed in your locality?	Yes ..... 1 No..... 2 No Idea/Don't know 3	
6	Has plantation of fruit trees in farmland/fruit orchards establishment changed in your locality?	Yes ..... 1 No..... 2 No Idea/Don't know 3	

SN	QUESTIONS	ANSWERS	SKIP
7	How you rate the extent of forest resources improvement in the locality?	Increased.....1 Similar.....2 Decreased .....3 No Idea/Don't know 4	

D.6: Natural Assets Indicators

SN	QUESTIONS	ANSWERS
1	Have you or any of your household member participated in any such asset creating activities, such as drinking water, irrigation system, multiple water use, forest management etc.?	Yes .....1 No .....2 Not applicable 3
2	Do you think that the assets that were built or rehabilitated in your community have allowed to increase agricultural potential due to greater water availability and/or soil fertility (e.g., increased or diversified production not requiring expanded irrigation)?	Yes .....1 No .....2 Not applicable 3
3	Do you think that the assets that were built or rehabilitated in your community have improved natural environment due to land stabilization and restoration (e.g., more natural vegetal cover, increase in indigenous flora/fauna, less erosion or siltation, etc.)?	Yes .....1 No .....2 Not applicable 3
4	Do you think that the assets that were built or rehabilitated in your community have improved environmental surroundings due to enhanced water and sanitation measures (i.e., greater availability/longer duration of water for domestic non-human consumption, improved hygiene practices – less open defecation)?	Yes .....1 No .....2 Not applicable 3

E. STABLE AND CLIMATE RESILIENT SOURCES OF INCOME

E.1 Staple Food Crop Production

SN	QUESTIONS	ANSWERS	SKIP
1	Have you or any of your household have initiated any climate resilient practices for stable food production?	Yes.....1 No 2	If No go to 2

1.1 If yes, adoption of any climate resilient practices for staple food crops cultivation

SN	Adaptation measures	Yes	No
1	Cultivating/harvesting crop relying/based on weather forecast	1	2
2	Integrated pest management	1	2
3	Integrated nutrient management	1	2
4	Changes of crop varieties/seeds	1	2
5	Cultivation of local varieties/land races	1	2
6	Crop insurance	1	2
7	Mulching (Plastics/crop residues)	1	2
8	Crop rotation	1	2
9	Organic farming	1	2
10	Increase use of farmyard manure	1	2
11	Follow agro-advisory (Cropping calendar/weather information)	1	2
12	Tillage farming (Zero/minimum)	1	2
13	Drought resistant varieties cultivation	1	2
14	Relying on MUS technologies	1	2
15	Irrigation facilities improvement (Canal improvement)	1	2
16	Post-harvest management (rustic store) – (Potato only)	1	2
17	Terrace improvement	1	2
18	Others specify		

2. Agricultural Crops

SN	Crops	Growing crops	Total area (Ropani)	Adoption of climate smart practices	With climate smart practices			Without climate smart practices		Sale		Post-harvest loss (%)
					Type of practices (Any three)	Area (Ropani)	Production (Kg)	Area (Ropani)	Production (Kg)	Sale	Price (Rs/Kg)	
1	Paddy	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)	1. (Select from roster above)					1. Yes 2. No		
2	Wheat	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
3	Maize	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
4	Millet	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
5	Barley	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
6	Buck wheat	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
7	Chino	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
8	Uwa	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
9	Bean/ Pulses	1. Main crop 2. Intercropping 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		

SN	Crops	Growing crops	Total area (Ropani)	Adoption of climate smart practices	With climate smart practices			Without climate smart practices		Sale		Post-harvest loss (%)
					Type of practices (Any three)	Area (Ropani)	Production (Kg)	Area (Ropani)	Production (Kg)	Sale	Price (Rs/Kg)	
10	Oil seeds (Mustards)	1. Main crop 2. Intercropping 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
11	Potato	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
12	Others specify	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		
13	Others specify	1. Yes 2. No		1. Yes (Only) 2. No 3. Mix (Both)						1. Yes 2. No		

E 2. Vegetable Farming

a. Kitchen farming

	QUESTIONS	ANSWERS	SKIP
1	Do you cultivate vegetables in your homestead area?	Yes .....1 No 2	If No go to 2
1.1	Approximate area	..... Ana	
1.2	If yes, list three main vegetables that you grow during last season?	1. 2. 3.	
1.3	Purpose of cultivation	Self-consumption .....1 Self-consumption and sale.....2 Sale only 3	
1.3.1	Specify income (Rs) (if 2 and 3) from last year		

b. Tunnel farming

	QUESTIONS	ANSWERS	SKIP
2	Do you have tunnel/ greenhouse/ plastic houses?	Yes .....1 No 2	No go to b
2.1	Have you installed irrigation facility in greenhouse/tunnel?	Yes .....1 No 2	
2.2	Number of tunnels owned/operate		
2.3	Do you cultivate vegetables in tunnel/greenhouse/plastic houses?	Yes .....1 No 2	
2.4	Number of tunnels with vegetable cultivation		
2.5	List five main commodities		

SN	Crops	Area (Anna)	Production Quantity (Kg)	Sale		Post-harvest loss (%)
				Sale	Price (Rs/Kg)	
1				Yes/No		
2				Yes/No		
3				Yes/No		

Tomato, Cauliflower, cabbage, radish, pumpkin, green leafy vegetables etc.

c. Open farming (Commercial purpose)

	QUESTIONS	ANSWERS	SKIP
1	Have you cultivated vegetables for commercial purpose?	Yes..... 1 No 2	If 2 go to E.3
1.1	Area under vegetable cultivation (Anna) per season	..... Ana	
1.2	If yes, list seven main commodities that you produce targeting the market?	1. 2. 3. 4.	

Tomato, Cauliflower, cabbage, radish, pumpkin, green leafy vegetables etc.

1.3 Adoption of any climate resilient practices in vegetable farming

SN	QUESTIONS	ANSWERS	SKIP
1.3.1	Have you or any of your household have initiated any climate resilient practices for vegetable production?	Yes.....1 No.....2	If No go to 1.4

SN	Adaptation measures	Yes	No
1	Cultivating/harvesting crop relying/based on weather forecast	1	2
2	Integrated pest management	1	2
3	Integrated nutrient management	1	2
4	Changes of crop varieties/seeds	1	2
5	Cultivation of local varieties/land races	1	2
6	Crop insurance	1	2
7	Mulching (Plastics/crop residues)	1	2
8	Crop rotation	1	2
9	Organic farming	1	2
10	Increase use of farmyard manure/	1	2
11	Follow agro-advisory (Cropping calendar/weather information)	1	2
12	Tillage farming (Zero/minimum)	1	2
13	Local land race conservation	1	2
14	Drought resistant varieties cultivation	1	2
15	Use of non-conventional irrigation (rainwater/ponds)	1	2
16	Irrigation facilities (Canal improvement)	1	2
17	Drip/sprinkle irrigation	1	2
18	Mix cropping/Inter-cropping	1	2

1.4 Vegetable farming

SN	Crops	Total area Ropani)	Climate smart practices	With climate smart practices			Without climate smart practices		Sale	
				Type of climate smart practices	Area (Ana)	Production (Kg)	Area (Ana)	Production (Kg)	Sale	Price (Rs/Kg)
1			1. Yes 2. No 3. Both	List from roster above)					1. Yes 2. No	
2			1. Yes 2. No 3. Both						1. Yes 2. No	

E.3 Cultivation of Spices (Ginger, turmeric, Onion, Garlic, Chilly)

a. Kitchen farming

	QUESTIONS	ANSWERS	SKIP
1	Do you cultivate spices in your homestead area?	Yes.....1 No 0	If No go to b
1.1	Approximate area		
1.3	If yes, list three main spices that you grow during last season?		
1.4	Purpose of cultivation	Self-consumption .....1 Self-consumption and sale.....2 Sale only 3	
1.4.1	Specify income (Rs) (if 2 and 3) from last year		

b. Tunnel farming

	QUESTIONS	ANSWERS	SKIP
2	Do you have tunnel/ greenhouse/ plastic houses?	Yes.....1 No 2	No go to b
2.1	Have you installed irrigation facility in greenhouse/tunnel?	Yes.....1 No 2	
2.2	Number of tunnels owned/operate		
2.3	Do you cultivate vegetables in tunnel/greenhouse/plastic houses?	Yes.....1 No 2	
2.4	Number of tunnels with species cultivation		
2.5	List five main commodities	1. 2. 3.	

SN	Crops	Area (Anna)	Production Quantity (Kg)	Sale		Post-harvest loss (%)
				Sale	Price (Rs/Kg)	
1				Yes/No		
2				Yes/No		
3				Yes/No		
4				Yes/No		
5				Yes/No		

Ginger, Garlic, Onion, Chilly, Turmeric etc.

c. Open farming (Commercial purpose)

	QUESTIONS	ANSWERS	SKIP
1	Have you cultivated species for commercial purpose?	Yes ..... 1 No 2	If 2 go to E.3
1.1	Total area under species cultivation (Anna) per season	..... Ana	
1.2	If yes, list five main commodities that you produce targeting the market?	1. 2. 3. 4. 5.	

Tomato, Cauliflower, cabbage, radish, pumpkin, green leafy vegetables etc.

1.3 Adoption of any climate resilient practices in spices cultivation

1.3.1	Have you or any of your household have initiated any climate resilient practices for spices cultivation?	Yes.....1 No.....2	If No go to 1.4

SN	Adaptation measures	Yes	No
1	Cultivating/harvesting crop relying/based on weather forecast	1	2
2	Integrated pest management	1	2
3	Integrated nutrient management	1	2
4	Changes of crop varieties/seeds	1	2
5	Cultivation of local varieties/land races	1	2
6	Crop insurance	1	2
7	Mulching (Plastics/crop residues)	1	2
8	Crop rotation	1	2

SN	Adaptation measures	Yes	No
9	Organic farming	1	2
10	Increase use of farmyard manure/	1	2
11	Follow agro-advisory (Cropping calendar/weather information)	1	2
12	Tillage farming (Zero/minimum)	1	2
13	Local land race conservation	1	2
14	Drought resistant varieties cultivation	1	2
15	Use of non-conventional irrigation (rainwater/ponds)	1	2
16	Irrigation facilities (Canal improvement)	1	2
17	Drip/sprinkle irrigation	1	2
18	Mix cropping/Inter-cropping	1	2
19			
20			

1.4 Spices cultivation

SN	Crops	Total area Ropani)	Climate smart practices	With climate smart practices			Without climate smart practices		Sale		Post-harvest loss (%)
				Type of climate smart practices	Area (Ana)	Production (Kg)	Area (Ana)	Production (Kg)	Sale	Price (Rs/Kg)	
1			1. Yes 2. No 3. Both	1. (List from roster above)					1. Yes 2. No		
2			1. Yes 2. No 3. Both						1. Yes 2. No		
4			1. Yes 2. No 3. Both						1. Yes 2. No		

E.4 Cultivation of NTFPs and Herbal Tea

	QUESTIONS	ANSWERS	SKIP
1	Do you cultivate NTFPS in your farmland?	Yes ..... 1 No 2	If No go to 2
1.1	Approximate area	Ropani	
1.2	If yes, list three main species?	1. 2. 3.	
1.3	Specify income (Rs)		
2	Do you cultivate tea/herbal tea?	Yes ..... 1 No 2	If No go to E.5
2.1	Approximate area	Ropani	
4	Specify last year income (Rs)		

E.5 Fruits and Other Perennial crops

	QUESTIONS	ANSWERS	SKIP
1	Have you planted fruit trees?	Yes..... 1 No 2	If 2 go to E.5

3. If yes, please provide details

SN	Fruits	Plants	Plantation after CAFS-K	Sale of fruits	
				Sale	Income (Rs)
1	Banana	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
2	Orange /Mandarin	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
3	Lemon	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
4	Apple	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
5	Wall nut	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
6	Pear	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
7	Peach/ Plum	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
8	Other specify	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	
9	Other specify	1. Yes/2. No	1. Yes/2. No	1. Yes/2. No	

E.6 Farming Expense

SN	Activities	Use	Unit	Rate	Quantity
1	Hired Human Labour	1. Yes/2. No			
1.1	Men	1. Yes/2. No	Days		
1.2	Women	1. Yes/2. No	Days		
2	Own Human Labour	1. Yes/2. No			
2.1	Men	1. Yes/2. No	Days		
2.2	Women	1. Yes/2. No	Days		
3	Bullock labour	1. Yes/2. No	Days		
4	Power Tiller	1. Yes/2. No	Hours		
5	Pump set Use	1. Yes/2. No	Hours		
6	Sprayer Use	1. Yes/2. No	Hours		
7	Seeds purchase	1. Yes/2. No	Lumpsum (NRs)		
8	Pesticides/ Growth hormones	1. Yes/2. No	Lumpsum (NRs)		
9	Land rent/Tax	1. Yes/2. No	Lumpsum (NRs)		
10	Water use fee/irrigation fee	1. Yes/2. No	Lumpsum (NRs)		
11	Repair and maintenance	1. Yes/2. No	Lumpsum (NRs)		
12	Manure (Farmyard)	1. Yes/2. No	Bhari		
13	Chemical fertilizer	1. Yes/2. No			
13.1	Urea	1. Yes/2. No	Kg		
13.2	DAP	1. Yes/2. No	Kg		
13.3	Potash	1. Yes/2. No	Kg		
14	Other specify (1)	1. Yes/2. No	Lumpsum		

E.7 Livestock Keeping

	QUESTIONS	ANSWERS	SKIP
1	Do you rear livestock?	Yes..... 1 No 2	If no skip to E.8
2	Have you or any of your household have initiated any climate resilient practices for livestock rearing?	Yes..... 1 No..... 2	

2.1 If yes, please provide details

SN	Adaptation measures	Yes	No
1	Cattle shed improvement	1	2
2	Local breeds rearing	1	2
3	Cross breeds/ disease resistant	1	2
4	Livestock insurance	1	2
5	Manure management	1	2
6	Feed management/ Feed diversification /Feeding practice improvement	1	2
7	Timely de-stocking	1	2
8	Vaccination/Periodic check-up	1	2
9	Fodder/grass cultivation	1	2
10	Other specify	1	2

3. Livestock number

SN	Type	Response	Adoption of climate smart practices (From roster above)	Income from sale of live animals (Last year)
1	Cattle (Cow, Ox, yak)	1. Yes 2. No		
2	Buffalo	1. Yes		
3	Horse/Mule	2. No		
4	Goat	1. Yes		
5	Sheep	2. No		
6	Pigs	1. Yes		
7	Poultry Birds (Chicken/Duck)	2. No		
8	Others specify	1. Yes		

4. Livestock products

SN	Productions	Unit	Production (Last year)		Sale	
			Total	Contribution from climate smart practice (%)	Response	Selling price
1	Milk	Litre			Yes/No	
2	Egg	Number			Yes/No	
3	Milk products (ghee, churpi, butter)	Kg			Yes/No	
4	Wool/Fibres	Kg			Yes/No	
5	Dung cake	Bhari			Yes/No	
6	Other specify				Yes/No	

5. Livestock expense (Annual)

SN	Activities	Response	Unit	Wage rate	Quantity / Amount
1	Own Human labour	1. Yes/2. No			
2.1	Men	1. Yes/2. No	Days		
2.2	Women	1. Yes/2. No	Days		
1	Hired Human labour	1. Yes/2. No			
2.1	Men	1. Yes/2. No	Days		
2.2	Women	1. Yes/2. No	Days		

SN	Activities	Response	Unit	Wage rate	Quantity / Amount
2	Feed	1. Yes/2. No	Days		
2.1	Straw/Crop resides	1. Yes/2. No	Lumpsum		
2.2	Concentrate feed	1. Yes/2. No	Lumpsum		
2.3	Grasses	1. Yes/2. No	Lumpsum		
3	Medicines/Vitamins	1. Yes/2. No	Lumpsum		
4	Land rent/Tax/ Rental	1. Yes/2. No	Lumpsum		
5	Water expense	1. Yes/2. No	Lumpsum		
6	Electricity expense	1. Yes/2. No	Lumpsum		
7	Annual repair and maintenance	1. Yes/2. No	Lumpsum		
8	Annual deprecation cost	1. Yes/2. No	Lumpsum		
9	Insurance expense	1. Yes/2. No	Lumpsum		
10	Vaccine	1. Yes/2. No	Lumpsum		
11	Litter/bedding material	1. Yes/2. No	Lumpsum		
12	Other specify (1)	1. Yes/2. No	Lumpsum		
13	Other specify (2)	1. Yes/2. No	Lumpsum		

E. 8 Non-farm Income

	QUESTIONS	ANSWERS	SKIP
1	How many of your family members are earning income or supporting household income from non-farm related activities (other than farming)?		

SN	Name	Sex	Age	First non-farm occupation		Secondary non-farm occupation	
				Activities	Income (Rs)	Activities	**Income (Rs)**
1		1. Male 2. Female		1. Service 2. Farm wage 3. Non-farm wage 4. Business/trading 5. Remittance (foreign) 6. Seasonal migration 7. Pension/Social security 8. Traditional occupation (Priest/tailoring/shoe making) 9. Others specify		1. Service 2. Agriculture wage 3. non-farm wage 4. Business/trading 5. Remittance (foreign) 6. Seasonal migration 7. Pension/Social security 8. Traditional occupation (Priest/tailoring/shoe making) 9. Others specify	
2				do		do	
3				do		do	
4				do		do	
5				do		do	
6				do		do	
7				do		do	
8				do		do	
9							
10							

E.9 other family income sources

SN	Activities	Sources	Amount (NRs)
1	Rented out land	1. Yes 2. No	
2	Rented out property/room/houses	1. Yes 2. No	
3	Renting of agriculture equipment (Power tiller, threshers, sprayer, ox etc.)	1. Yes 2. No	
4	Renting of non-farm equipment's (Tractor, vehicles,)	1. Yes 2. No	
5	Trading (agriculture crops) -	1. Yes 2. No	
6	Trading non-farm	1. Yes 2. No	
7.	Other specify	1. Yes 2. No	

	QUESTIONS	ANSWERS	SKIP
1	Has your farm income increased as a result of CAFS-K support?	Increased ..... 1 Similar ..... 2 Decreased ..... 3 No Idea/Don't know 4	
2	What is contribution of CAFS-K on farm income increment?	..... %	
3	Has your non-farm income increased as a result of CAFS-K support?	Increased ..... 1 Similar ..... 2 Decreased ..... 3 No Idea/Don't know 4	
4	What is contribution of CAFS-K on non-farm income increment?	%	

F. LIVELIHOODS BASED COPING STRATEGIES

F.1: Food Consumption Score (FCS)

1. How many days over the last 7 days, did members of your household eat the following food items, prepared and/or consumed at home, and what was their source?

Food items	Number of days eaten in past 7 days
CEREALS (rice, pasta, bread, sorghum, millet, maize, potato, yam, white sweet potato)	
LEGUMES/NUTS (beans, cowpeas, peanuts, lentils, nut, soy, pigeon pea and / or other nuts)	
MILK AND OTHER DAIRY PRODUCTS (fresh / sour milk, yogurt, cheese, other dairy products) exclude margarine/butter or small amounts in tea/coffee	
MEAT, FISH, EGGS (goat, beef, chicken, pork, blood, fish, including canned tuna, escargot, and/ or other seafood, eggs)	
VEGETABLES AND LEAVES (spinach, onion, tomatoes, carrots, peppers, green beans, lettuce, etc.)	
FRUITS (banana, apple, lemon, mango, papaya, apricot, peach, etc.)	
OIL, FAT, BUTTER (vegetable oil, palm oil, shea butter, margarine, other fats / oil)	
SUGAR OR SWEET (sugar, honey, jam, cakes, candy, cookies, pastries, cakes, and other sweets including sugary drinks)	

F.2: Economic Capacity to meet Essential Needs

Food Expenditure

		Did your household purchase any of the following food items on cash or credit during the last 30 days for domestic consumption? If 'no', auto enter '0' in 1 and 2 and proceed to 3.	If 'yes', ask the respondent to estimate the total cash and credit expenditure on the item for the 30 days. *(Register the expenses in Rs.)* [Both 802.1 and 802.2 cannot be 0.]		During the last 30 days did your household consume the following foods without purchasing them (food assistance and others)? 0 = No, skip to next food group row. 1 = Yes	Estimated value of non-purchased items consumed. during the last 30 days (This question refers to the *consumption reported in 803)*	What was the main source of the *non-purchased* food group? 1=own production 2= gathering/ hunting 3=donation/food aid/gift 4=received in exchange for labour/items 5 = Purchased before 30 days (this question refers to the *consumption reported in 803)*
SN	Food items	1	2	3	4	5	6
			Cash (Rs.)	Credit (Rs.)		(Rs.)	
1.	Cereals (maize, rice, sorghum, wheat, bread)	1= Yes 2=No					
2.	Tubers (sweet potatoes, cassava)						
3.	Pulses (beans, peas, groundnuts)						
4.	Fruits & vegetables						
5.	Fish/Meat/Eggs/poultry						
6.	Oil, fat, butter						
7.	Milk, cheese, yogurt						
8.	Sugar/Salt						
9.	Tea/Coffee						
10.	Other meals/snacks consumed outside the home						

2. Non-food Expenditure:

Did you purchase the ____ during the last 30 days for domestic consumption (not for business for instance)?

SN	Items	Responses	Estimated expenditure during the last 30 days
1.	Alcohol/Tobacco etc.	1. Yes 2. No	
2.	Soap, Toothpastes, brush, creams, and other personal care items		
3.	Transport		
4.	Fuel (wood, kerosene etc.)		
5.	Water (drinking and other domestic use)		
6.	Electricity/Lighting		
7.	Communication (phone)		
8.	Rent (House)		

3. Other household expenditure:

In the past 6 months did your household spent money on _____?

SN	Items	Responses	Estimated expenditure during the last 30 days
1.	Medical expenses, health insurance	1. Yes 2. No	
2.	Clothing, shoes	1. Yes 2. No	
3.	Formal education, school fees, uniform, stationaries, etc.	1. Yes 2. No	
4.	Vocational training	1. Yes 2. No	
5.	Debt repayment	1. Yes 2. No	
6.	Celebrations / social events	1. Yes 2. No	
7.	Agricultural inputs (tools, seeds, fertilizers/manures, pesticides, hired labour, irrigation etc.)	1. Yes 2. No	
8.	House construction/repairs/mortgage	1. Yes 2. No	
9.	Household furnishing and other appliances	1. Yes 2. No	
10.	Remittances (outside country)	1. Yes 2. No	
11.	Veterinary expenses (animal feed and fodder, medicine)	1. Yes 2. No	
12.	Fines, Taxes, Debts, Loan, Interest, etc.	1. Yes 2. No	
13.	Other (specify)	1. Yes 2. No	

F.3: Livelihood based coping strategy

During the past 30 days, did anyone in your household have to engage in any of the following activities because there were not enough resources (food, cash, else) to access essential needs (e.g., adequate shelter, education services, health services, etc.)?

SN	Question	Response
1	Sell household assets/goods	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
2	Purchase food on credit or borrowed food	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
3	Spend savings	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
4	Borrow money	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
5	Sold productive assets such as (sewing machine, plough, ox, cart etc.)	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
6	Consumed seed stocks that were to be held/saved for the next season	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
7	Withdraw children from School	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
8	Sell house or land	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
9	Sell last female animals (female goat, female cow etc.)	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable
10	Begged	1. No, because I did not face a shortage of food 2. No, because I already sold those assets or have engaged in this activity and cannot continue to do it. 3. Yes 4. Not applicable

SN	Question	Response
11	What is the main reason(s) you or other members in your household adopted these coping strategies?	1. To access food 2. To access education services/ commodities (e.g., uniforms, books) 3. To access health services/medicines 4. To access adequate shelter 5. To access water/sanitation facilities 6. Other (specify): ....

G. CLIMATE CAPACITY SCORE

SN	Thematic area	Questions	Response
1	Does your community own assets that protects most of households and their production capacity from climate shocks?	1.1 Does your community have access to climate information?	1. Yes 2. No
		1.2 Does the community have access to climate/weather information useful for livelihood decision making	1. Yes 2. No
		1.3 The climate information received is well formulated and enable the community to understand how climate will affect people or livelihoods?	1. Yes 2. No
2	Access to climate/weather information Does your community use climate resilient practices to protect livelihoods from climatic hazards?"	2.1 Do farmers in your community apply permanent soil organic cover to reduce erosion and evapotranspiration (mulching, cover crops...)?	1. Yes 2. No 3. Not applicable[123]
		2.2 Do farmers in your community apply crop diversification and rotation (use of drought resistant crops, associations of at least three crops...)?	1. Yes 2. No 3. Not applicable
		2.3 Do farmers in your community apply soil fertility conservation and improvement techniques (composting)?	1. Yes 2. No 3. Not applicable
		2.4 Do herders in your community use timely destocking prior to the dry season to reduce animal losses?	1. Yes 2. No 3. Not applicable
		2.5 Do herders apply methods to improve pastures (pasture seedlings, contour ridges...)?	1. Yes 2. No 3. Not applicable
		2.6 Do herders apply methods to improve animal water availability (water ponds, water budgeting...?)	1. Yes 2. No 3. Not applicable
3	Assets to protect the community against climate related shocks Does your community own assets that protects most of households and their production capacity from climate shocks?	3.1 Does your community have assets that protect households, belongings and production from drought by improving soil water retention (terraces, zai-pits, bunds and ridges...)?	1. Yes 2. No 3. Not applicable[124]
		3.2 Does your community have assets that protect households, belongings and production from floods (diversion canals, dams...)?	1. Yes 2. No 3. Not applicable
		3.3 Does your community have assets that protect households, belongings and production from erosion/landslides (windbreaks, reforestation, agro-forestry, cover crops...)?	1. Yes 2. No 3. Not applicable

[123] Not applicable if livelihood not relevant
[124] Not applicable if not affected by type of shock

SN	Thematic area	Questions	Response
4	Access to financial services (micro insurance) Does your community have access to funds to prepare for and/or recover from climatic shocks?	4.1 Does your community have access to weather index insurance over the past three years?	1. Yes 2. No
		4.2 Have your community received a pay-out over the past three years?	1. Yes 2. No
		4.3 Was the pay-out received in a timely manner to address the consequences of the climatic shock?	1. Yes 2. No
		4.4 Was the amount of the pay-out received sufficient to recover from the losses occurred?	1. Yes 2. No
	Availability and access contingency funding mechanisms. Does your community have access to timely and sufficient assistance in case of shocks?	Has your community received any kind of assistance from government institution, UN agencies or NGOs in case of climatic shocks over the past three years?	1. Yes 2. No
		Was the assistance received in a timely manner to address the consequences of the shock?	1. Yes 2. No
		Was the assistance provided sufficient to recover from the losses occurred?	1. Yes 2. No

H. ENGAGED IN NEW INCOME GENERATING VENTURES

	QUESTIONS	ANSWERS	SKIP
1	Have your households initiated any new business/income generating activities in last three years?	Yes ..... 1 No 2	If no skip

If yes, please give details?

SN	Enterprises/IGAs	Initiated	Type of business	Who is leading business?	Are women family members engaged?	Approx. income (Net income)
1	Agri-products such as home garden, nursery, vegetable, fruits, production of seeds/seedlings etc.	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
2	NTFPs, Herbs, medicinal and aromatic plants (MAP) trading and processing	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
3	Processing of fruits and vegetables / potato (Dried)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	

SN	Enterprises/IGAs	Initiated	Type of business	Who is leading business?	Are women family members engaged?	Approx. income (Net income)
4	Dairy products such as butter, cheese and others (include milk only if processed/ pasteurized)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
5	Other farm products such as mushroom cultivation, apiculture (beekeeping),	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
6	Collection of non-timber forest products (NTFP)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
7	Handicrafts making (Cottage industry-bamboo etc.)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
8	Restaurants/ Grocery story/other stores	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
9	Workshop/ repair shops requiring technical skill	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
10	Fresh houses	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	

SN	Enterprises/IGAs	Initiated	Type of business	Who is leading business?	Are women family members engaged?	Approx. income (Net income)
11	Other (Specify)_____	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	

I: ACCOUNTABILITY TO AFFECTED POPULATION

SN	Questions	Responses	Skip
1	Are you well informed about CAFS-Karnali program before receiving support?	Yes... .....1 No 2	
2	If yes, what was the source of information	CAFS-Karnali/Partner NGOs... .....1 Local government .....2 Friends/Relatives .....3 Radio/Television.....4 Government officials .....5 Groups/committee.....6 Others specify 7	
3	Did you encounter any safety challenges/ issues while receiving assistance from WFP?	Yes... .....1 No 2	
4	If yes, please specify	Physical violence, harassment or threat.....1 Assault in connection with theft of assistance that has been received ..... 2 Injuries or casualties at programme sites ..... 3 Abductions ..... 4 Obstruction or restriction of access to assistance 5 Deliberate or unintentional attack by parties to a conflict ..... 6 Lack of crowd control measures ..... 7 Other specify 7	

J. GENDER EQUALITY AND WOMEN EMPOWERMENT

SN	Questions	Responses	Skip
1	Who (men, women or both) decides what to do with the cash/voucher given by CAFS_K WFP, such as when, where and what to buy?	Men... 1 Women 2 Both 3	
2	Who (men, women or both) decides regarding participating in the CAFS_K/ WFP activities, such as whether income generating or community p?	Men... 1 Women 2 Both 3	
3	Who (men, women or both) decides regarding income generated from the CAFS-Karnali WFP activities, such as whether to sell, trade, lend or share a portion of it?	Men... 1 Women 2 Both 3	
4	Who (men, women or both) generally makes decisions over the other household resources or important household issues?	Men... 1 Women 2 Both 3	
5	Has the project interventions designed specially targeting women and other marginalized groups?	Yes... 1 No 2 Don't know 3	

	QUESTIONS	ANSWERS	Remark
1	Is this a women respondent	Yes 1 No 2	If 1 End interview

B. Interview with the Women Respondents

1	Name of respondent	
2	Age	
3	Educational status of respondent	Can count only 1 Read and write 2 Primary schooling 3 Lower secondary 4 Secondary 5 10- plus 2 6 Graduate and above 7
4	Contact number	

A. AWARE OF PREDICTED CLIMATE CHANGE IMPACTS AND APPROPRIATE RESPONSES

SN	QUESTIONS	ANSWERS	SKIP
1	Have you heard about the climate change?	Yes 1 No 2	If 2 skip to 3
2	What is your main source of information about climate change? Maximum three responses	CAFS-Karnali/Partner NGOs officials 1 Family member 2 Neighbour/friends 3 Government agencies/officials 4 Newspaper 5 Radio/televisions 6 Participating in awareness programs 7 Other NGOs officials 8 Other specify 9	

3	Which of the following are the climate change impacts? (Don't probe)	Yes	No
1	Increase in temperature/heat	1	2

SN	QUESTIONS	ANSWERS	SKIP
2	Increase in number of hot days	1	2
3	Integrated nutrient management	1	2
4	Increase in number of rainy days	1	2
5	Decrease in monsoon days	1	2
6	Erratic rainfall (untimely/little)	1	2
7	Rapid snow melting	1	2
8	Increase incidence of snow fall	1	2
9	Other specify	1	2
4	What are extreme climate events that you faced/observed in your villages/locality in last three years? (Don't probe)	Yes	No
1	Drought	1	2
2	Heat wave	1	2
3	Cold wave	1	2
4	Extreme heat	1	2
5	Extreme cold	1	2
6	Landslide	1	2
7	Flood	1	2
8	Drying of natural springs/Poor water availability	1	2
10	Fire (forest/settlement	1	2
11	Windstorm	1	2
12	Thunderstorm	1	2
13	Hailstorm	1	2
14	Other specify	1	2
15	Other specify	1	2
5	What are impacts of above extreme climatic events to your households or the communities? (Don't probe)	Yes	No
1	Pests & diseases problems in crops	1	2
2	Decrease crop production/productivity	1	2
3	Crop loss/failure	1	2
4	Food shortage/scarcity	1	2
5	Loss of forest cover/forest degradation	1	2
6	Death/Injury of wildlife	1	2
7	Livestock diseases	1	2
8	Health problems (Children/Adult)	1	2
10	Drinking water shortage/scarcity/pollution	1	2
11	Water scarcity for farming	1	2
12	Spread of invasive species	1	2
13	Land degradation (Sedimentation/soil debris)	1	2
14	Loss/damage of property/houses/sheds	1	2
15	Loss of land	1	2
16	Damage of infrastructure (irrigation, water supply)	1	2
17	Death of family members		
18	Other specify	1	2
6	Has your HH undertaken any adaptation measure to respond to the negative impacts of CC?	Yes.....1 No 2	If 2 skip to C
7	If yes, what adaptation measures has your HHs undertaken to respond??	Yes	No
1	Cultivating/harvesting crop relying/based on weather forecast	1	2
2	Integrated pest management	1	2
3	Integrated nutrient management	1	2
4	Changes of crop varieties/seeds	1	2
5	Cultivation of local varieties/land races	1	2

SN	QUESTIONS	ANSWERS	SKIP
6	Crop insurance	1	2
7	Mulching (Plastics/crop residues)	1	2
8	Crop rotation	1	2
10	Organic farming	1	2
11	Increase use of farmyard manure/	1	2
12	Follow agro-advisory (Cropping calendar/weather information)	1	2
13	Tillage farming (Zero/minimum)	1	2
14	Agroforestry practices (Alley cropping, trees plantation)	1	2
15	Fruit Orchards/private forests (Fruit/fodder/firewood)	1	2
16	Local land race conservation	1	2
17	Drought resistant varieties cultivation		
18	Integrated livestock management (Fodder and forage, feeding trough	1	2
19	Livestock insurance	1	2
20	Medical treatments of livestock/Extension services from Agro-vets/Palika	1	2
21	Multiple water use (rainwater harvesting/wastewater collection/tap water use)	1	2
22	Water efficient practices (Drip/micro irrigation)	1	2
23	Water augmentation structure construction (Pond, irrigation canal construction, water storage tanks)	1	2
24	Soil and water conservation (Check dams/gully control)	1	2
25	Community infrastructure construction, repair and maintenance (drinking water, irrigation and storage facilities)	1	2
26	Use of storage facilities	1	2
27	Improvement of storage practices (Rustic stores)	1	2
28	Tunnel Farming	1	2
29	Changes in agricultural occupation/livelihood activities (from farming to another sector)	1	2
30	Migration of family members for employment	1	2
31	Working for temporary employment (farm and non-farm wage)	1	2
32	Forest fire control /Fire fighting	1	2
33	Operation of business /non-farm related activities	1	2
34	Business/marketing of agricultural produce		
35	Medical treatments / health facility visits	1	2
36	Medical/health insurance/life insurance		
37	Property insurance (House, land, cattle shed)		
38	Improved soil management techniques (contour drains, bunds, terracing)		
39	Improved cooking stoves		
40	Other Specify		

B. ENGAGED IN NEW INCOME GENERATING VENTURES

	QUESTIONS	ANSWERS	SKIP
9	Have you participated in any new business/ income generating activities in last three years?	Yes.....1 No 2	If no end interview

10. If yes, please give details?

SN	Enterprises/IGAs	Initiated	Type of business	Who is leading business?	Are women family members engaged?	Approx. income (Profit)
1	Agri-products such as home garden, nursery, vegetable, fruits, production of seeds/seedlings etc.	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
2	NTFPs, Herbs, medicinal and aromatic plants (MAP) trading and processing	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
3	Processing of fruits and vegetables / potato (Dried)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
4	Dairy products such as butter, cheese and others (include milk only if processed/ pasteurized)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
5	Other farm products such as mushroom cultivation, apiculture (beekeeping),	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
6	Collection of non-timber forest products (NTFP)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
7	Handicrafts making (Cottage industry-bamboo etc.)	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	

SN	Enterprises/IGAs	Initiated	Type of business	Who is leading business?	Are women family members engaged?	Approx. income (Profit)
8	Restaurants/ Grocery story/other stores	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
9	Workshop/ repair shops requiring technical skill	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
10	Fresh houses	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	
11	Other (Specify)_____	1. Yes 2. No	1. (Family) Own 2. Group/ cooperatives 3. Partnership 4. Other specify	1. Men 2. Women	1. Yes 2. No	

C: ACCOUNTABILITY TO AFFECTED POPULATIONS

SN	Questions	Responses	Skip
1	Are you well informed about CAFS-Karnali program before receiving support?	Yes... .....1 No 2	
2	If yes, what was the source of information	CAFS-Karnali/Partner NGOs... .....1 Local government .....2 Friends/Relatives .....3 Radio/Television.....4 Government officials .....5 Groups/committee .....6 Others specify 7	
3	Did you encounter any safety challenges/ issues while receiving assistance from WFP?	Yes... .....1 No 2	
4	If yes, please specify	Physical violence, harassment or threat.....1 Assault in connection with theft of assistance that has been received ..... 2 Injuries or casualties at programme sites ..... 3 Abductions ..... 4 Obstruction or restriction of access to assistance 5 Deliberate or unintentional attack by parties to a conflict ..... 6 Lack of crowd control measures ..... 7 Other specify 7	

D. GENDER EQUALITY AND WOMEN EMPOWERMENT

SN	Questions	Responses	Skip
1	Who (men, women or both) decides what to do with the cash/voucher given by CAFS_K WFP, such as when, where and what to buy?	Men…1 Women…2 Both…3	
2	Who (men, women or both) decides regarding participating in the CAFS_K/ WFP activities, such as whether income generating or community p?	Men…1 Women…2 Both…3	
3	Who (men, women or both) decides regarding income generated from the CAFS-Karnali WFP activities, such as whether to sell, trade, lend or share a portion of it?	Men…1 Women…2 Both…3	
4	Who (men, women or both) generally makes decisions over the other household resources or important household issues?	Men…1 Women…2 Both…3	
5	Has the project interventions designed specially targeting women and other marginalized groups?	Yes…1 No…2 Don't know…3	

A. Qualitative interview

Checklist- 1: Checklist for Local Cooperating Partners

Since you have almost completed or about to complete your assignment on CAFS-Karnali partnering with the WFP-Nepal Country Office, we would like to ask you some questions regarding the operation and performance of the project. We strongly believe that you will respond to our questions with due diligence. Your responses will be kept strictly confidential and remain with us. The information provided by you will be used only for the final evaluation of the project, and names of the respondents will not be disclosed. Please feel free to respond our questions. Your responses will be used to generate good practices, learnings/lessons learned and to design similar project activities for your area and elsewhere.

Name of Agency: District:
Name of Respondent
Position
Working from: (Check) 1- District HQ 2- Field based
Working for the project- 1- Less than 1 year 2-More than a year
Date of interview/interaction

Q. 1 In your opinion, the activity supported by CAFS-Karnali relevant to improving resilience, reducing vulnerability, and increasing adaptive capacity at different levels? Rating in (1 to 5 Likert scale) where 5 High and 1- Very little. Give reasons.

Q. 2 In your opinion, To what extent the implementation mechanism is suitable for achieving expected results (e.g. establishment of LPCU, deployment of Local Partners, WFP's local support, PCO/NPSC at the federation level and PPCU at the province level etc.) Rating in (1 to 5 Likert scale) where 5 High and 1- Very little. Give reasons.

Q. 3 In your opinion, project activities have actually supported to improve resilience, reduce vulnerability and increase adaptive capacity of target group) Rating in (1 to 5 Likert scale) where 5 High and 1- Very little. Give reasons.

Q. 3 In your opinion, Does the project support concrete adaptation activities that anticipate and address adverse effects of climate change? Rating in 1 to 5 Likert scale)) 5 High and 1- Very little.
Give reasons for your opinion (Three reasons):

Q.4 Name three activities that, in your opinion, were concrete adaptation activities supported by the project anticipate and address adverse effects of climate change or climate risks?

Q.5 Of those activities supported through CAFS-Karnali, which were in high demand from the beneficiaries and from the local government/municipality.

Highly demanded activities by beneficiaries	**High demand from the Local Government**
1.	**1.**
2.	**2.**
3.	**3.**

Q. 6 In your opinion, to what extent were the project activities were adequate to increase adaptive capacity of the climate vulnerable, marginalized and poor beneficiaries, men and women? Rating in 1 to 5 Likert scale)- 5 High and 1- Very little.
Give reasons for your opinion (Three reasons):

Q. 7 In your opinion, to what extent were the project activities provided environmental, social, and economic benefits to the target groups, the most vulnerable communities, specifically V1 and V2? Rating in 1 to 5 Likert scale)- 5 High and 1- Very little.

7.1 Environment Benefits. Assessment and reasons

7.2 Social Benefits. Assessment and reasons

7.3 Economic Benefits. Assessment and reasons

8. Does your agency collaborate with the other stakeholders (particularly similar service providers working climate change adaptation/NRM related services) in implementing project components or activities? If yes, name of the agencies frequently collaborated except LGs.

Name of the Agencies Collaborated except Rural Municipality Executive Office

8. Does your agency regularly record and act on intended and un-intended consequences on project beneficiaries, including women and climate vulnerable households? 1- Yes, 2- Sometimes 3- Almost none.4- None
8.1 If yes, how do you do?

8.2 If No why?

8.3 Give reasons for your responses.

9. How have you experienced influence of external environment (factors), such as federalization on achievements of project results? 1- Highly contributory 2- Average 3- No contribution

Give reasons for your opinion (Three reasons):

9.1 Of the factors mentioned by you, name three most influencing factors.

1.
2.
3.

10. Indeed, several factors have contributed towards the achievements/non-achievements of the project outputs and outcomes envisaged by the project? Identify factors by their extent of contribution (first, second and third like this)

Contributory Factors by Ranking

Q. 11 In your opinion, were the project's objective and components clear, practical and feasible for given time frame and budget? Rating in 1 to 5 Likert scale) - 5 Highly feasible and 1- Very Low.

Give reasons for your opinion (Three reasons):

Q.14. In your opinion, to what extent of financial control mechanism instituted by the project /PCU contributed to informed decisions and planning for the successful implementation of CAFS activities in the field? Rating in 1 to 5 Likert scale)- 5 Highly feasible and 1- Very little.

Give reasons for your opinion (Three reasons):

Q.15. Did your agency annually assesses the capacity assessment of the beneficiaries and LGs to support or participate in project activities at the design and implementation phase? 1- Yes 2- Sometimes and 3- Rarely 4- No.
Give reasons for your response (Three reasons):

Q. 16. Did your agency experienced shortage/ in-sufficiency to meet the stated objectives? 1- Yes 2- Sometimes and 3- Rarely 4- No.

Give reasons for your response (Three reasons)

Q.17 In your opinion, how far partnership arrangements and clarity of role and responsibilities among partners contributed to the project objectives/outcomes? 5- Very high and 1-None/very low
Give reasons for your response (Three reasons)

Q.18. What has been the average times for the project cycle? Please indicate by type of the project/activities.

SN	Type of Project	Average time to complete the project cycle from the need identification to handover to the beneficiaries as applicable
1	Infrastructure project like irrigation	
2	Community building/construction	
3	Plantations (Fruit sapling)	
4	Training	

Q. 19 In your opinion, to what extent CAFS-Karnali has implemented mid-term results and findings? 1- Highly 2- Average 3- No idea/none
19.1 If highly, state those which have been implemented.

19.2 If other responses, give reasons
Q.20 How would you justify value for money from the perspective of your agency?

SN	Project activity/Example	Unit cost, could be expected considering country/district/local circumstance	Actual unit cost incurred by your agency

Q.21 How often your agency has been identifying challenges in a timely fashion, accurately and estimate their significance? *1- Annually 2- Semi-Annual 3- Quarterly 4- Rarely 5- None*
Give reasons

Q.22 Was there due diligence in the management of funds and financial audits? 1- Yes, 2- No 3- Do not know
Give reasons

Q.23 Did your agency provide the right staffing levels, ensured continuity and skill mix? 1- Yes, 2- No 3- Can't say/No idea.

Give reasons

Q.24 To what extent the delivery of the project outputs and outcomes were influenced by COVID-19? 1-5 Likert scale where 5- Highly influenced and 1- None

Give reasons

Q.25. How often your agency does update and adjust gender assessment in project activities? *1- Annually 2- Semi-Annual 3- Quarterly 4- Rarely 5- None*

Give reasons

Q.26. How your agency trying to respond to the different needs of the target groups, including women and men? Give the mechanisms/process.

Q.27 In your opinion, did the integration of GEEW into the design, planning, implementation of the CAFS contributed to project's effectiveness, improve efficiency, impact or sustainability and designing M and E? Responses in 1-Yes, 2- No 3- No idea

Responses	Effectiveness	Efficiency	Impact	Sustainability	M and E
Evidence (1 or 2 activity/sub-project)					

Q.28. In your opinion, what have been the synergies between the CAFS Karnali intervention and other WFP interventions. 1-Very Good, 2. Good or None.

28.1 If response is very good or good. Provide the names of the project.

28.2 If none, give reasons why.

Give reasons

29. In your opinion, to what extent project's outcomes are aligned with the Climate Change Policy 2011/National Climate Change Policy 2011 and National Adaptation Plan 2021-2050? Rating- 1- High 2.- Medium/Fair 3. None

Give reasons

30. In your opinion, to what extent the project (CAFS-Karnali) considered context factors such as political stability, migration of youths) in the design and delivery of project inputs and services? Rating- 1- High 2.- Medium/Fair 3. None

Give reasons

31. In your opinion, to what extent CAFS interventions coherent with the policies and programs of other WFP partners operating in Karnali region such as IFAD (ASHA and ASDP), UNDP's NCCSP etc.? - High 2.- Medium/Fair 3. None

Project	ASHA	ASDP	NCCSP		
Response					
Evidence (1 or 2 activity/sub-project)					

32. In your opinion, are there any financial or economic risks that may jeopardize sustainability of project outcomes? Response- 1- Yes, 2- No 3- No idea

Give reasons

33. In your opinion, do the various key stakeholders see that it is in their interest that project benefits continue to flow? Response- 1- Yes, 2- No 3- No idea

Give reasons

34. In your experience, has the project prepared a clear M&E plan laying out what needs to be monitored based on predefined programme logic? 1- Yes, 2- No 3- No idea

Give reasons

Q. 35. In your opinion, has project well defined the indicators and are relevant to measure the achievement of the objectives? 1- Yes, 2- No 3- No idea.

Give reasons for your response (Three reasons) and evidence if possible.

Q.36 In your opinion, did the project M&E system make the best use of existing (local, provincial, federal) monitoring and evaluation systems, including existing indicators? 1- Yes, 2- No 3- No idea.

36.1 Local: 1- Yes, 2- No 3- No idea.
Give reasons

36.2 Provincial: 1- Yes, 2- No 3- No idea.
Give reasons

36.3 Federal: 1- Yes, 2- No 3- No idea.
Give reasons

37. In your opinion, has the project included plans for feedback and to disseminate results from monitoring and reporting implementation as to allow for lessons learned and good practices identified to be shared with the wider community of adaptation planners and practitioners at all levels?
1- Yes, 2- No 3- No idea.

Give reasons

Q. 38. Was the M&E activities well-funded for the project period?

Q. 39. Any suggestions/remarks

Q. 40. In your opinion, have we missed to include any important aspects which is important from the perspective of final evaluation? If yes, please mention them.

Checklist- 2: Checklists for Local Government (Rural Municipality)

Since the project CAFS-Karnali implemented in your constituency implemented by WFP-Nepal Country Office, will end from October 2022 (*Kartik* this year), we would like to ask you some questions regarding the operation and performance of the project. We strongly believe that you will respond to our questions. Your responses will be kept strictly confidential and remain with us. The information provided by you will be used only for the final evaluation of the project, and names of the respondents will not be disclosed. Please feel free to respond our questions. Your responses will be used to generate good practices, learnings/lessons learned and to design similar project activities for your area and elsewhere.

Name of Rural Municipality	
Name of Respondent	
Position	
Resident Ward	
Working in the municipality- 1- Less than 1 year	2-More than a year
Date of interview/interaction	

Q. 1 In your opinion, the activity supported by CAFS-Karnali relevant to improving resilience, reducing vulnerability, and increasing adaptive capacity at different levels? (Rating in 1 to 5 Likert scale)) 5 Highly relevant and 1- Very little relevant.
Give reasons

Q. 2 In your opinion, To what extent the implementation mechanism is suitable for achieving expected results (e.g. establishment of LPCU, deployment of Local Partners, WFP's local support, PCO/NPSC at the federation level and PPCU at the province level etc.) (Rating in 1 to 5 Likert scale)) 5 Very Suitable 1- Very little Suitable 0-No idea
Give reasons

Q. 3 In your opinion, project activities have actually supported to improve resilience, reduce vulnerability and increase adaptive capacity of target group) (Rating in 1 to 5 Likert scale)) 5 High and 1- Very little, 0-No idea.
Give reasons

Q. 3 In your opinion, Does the project support concrete adaptation activities that anticipate and address adverse effects of climate change? Rating in 1 to 5 Likert scale)) 5 High and 1- Very little. 0- No idea
Give reasons

Q.4 Name three activities that, in your opinion, were concrete adaptation activities supported by the project anticipate and address adverse effects of climate change or climate risks?

Q.5 Of those activities supported through CAFS-Karnali, which were in high demand from the beneficiaries and from the local government/municipality.

Highly demanded activities by beneficiaries
1.
2.
3.

Q. 6 In your opinion, to what extent were the project activities adequate to increase adaptive capacity of the climate vulnerable, marginalized and poor beneficiaries, men and women? Rating in 1 to 5 Likert scale)- 5 High and 1- Very little. 0- No Idea
Give reasons

Q. 7 In your opinion, to what extent were the project activities provided environmental, social, and economic benefits to the target groups, the most vulnerable communities, specifically V1 and V2? Rating in 1 to 5 Likert scale)- 5 High and 1- Very little. 0-No idea
7.1 Environment Benefits. Assessment
Give reasons

7.2 Social Benefits. Assessment
Give reasons

7.3 Economic Benefits. Assessment
Give reasons for your opinion (Three reasons):
Q.8. Has your LG assisted LCPs to collaborate with the other stakeholders (particularly similar service providers working climate change adaptation/NRM related services implemented in your area. 1- Yes, 2- No 3- No idea.

Give reasons

Q.9. How has your municipality experienced influence of external environment (factors), such as federalization on achievements of project results in implementing project activities? 1- Highly contributory 2- Average 3- No contribution 4. No Idea

Give reasons

Q. 10. Indeed, several factors have contributed towards the achievements/non-achievements of the project outputs and outcomes envisaged by the project? Could you identify factors by their extent of contribution (first, second and third like this). 1- Yes, 2. No idea

If yes, mention the contributory factors in order.

Q. 11. Did LCP requested your municipality to provide matching fund from the LG due to shortage/ in-sufficiency to meet the stated objectives? 1- Yes; 2- No.3-No idea

Give reasons

Q.12. Do you know, any activities and programs for which your municipality provided matching fund to the LCP /CAFS-Karnali to implement activities as per the approved annual plan? 1- Yes, 2- No 3- No idea

If response is 1, list the name of the projects.

Sub-projects/activities	Matching/counterpart fund/budget allocated	Actual spent

Q.13. Did the LCPs assessed the capacity of the beneficiary and LGs to support or participate in project activities at the design and implementation phase? 1- Yes 2. No. 3.-No idea

Give reasons

Q.14. In your opinion, how far partnership arrangements and clarity of role and responsibilities between LG and LCP contributed to the project objectives/outcomes? 5- Very high and 1-None/very low, 0- No idea

Give reasons

Q.15 Was there due diligence in the management of funds and financial audits? 1- Yes, 2- No 3- Do not know

Give reasons

Q.16 Did your LG provided HR support to implement CAFS-Karnali activities to ensure continuity and skill mix? 1- Yes, 2- No 3- Can't say/No idea.

Give reasons

Q.17 To what extent the delivery of the project outputs and outcomes were influenced by COVID-19? 1-5 Likert scale where 5- Highly influenced and 1- None, 0-No idea

Give reasons

Q.18. Has your LG influenced the LCP to respond to the different needs of the target groups, including women and men? Response- 1- Yes, 2-No 3-No idea.

Give reasons

Q.19. In your opinion, what have been the synergies between the CAFS Karnali intervention and other WFP interventions. 1-Very Good, 2. Good 3. None 4- No idea

Give reasons

Q. 20. In your opinion, does CAFS-K activities are aligned with the Climate Change Policy 2011/National Climate Change Policy 2011 and National Adaptation Plan 2021-2050? 1- Yes, 2- No 3- A few 4- No idea

Give reasons

Q.21. Does your LG have LAPA? 1- Yes, 2-No 3-No idea

21.1 If yes, has your municipality initiated to implement LAPA? And you know who assisted to formulate LAPA. 1- Yes, 2- No 3- No idea.

Agency which supported to formulate LAPA:

22. In your opinion, to what extent the project (CAFS-Karnali) considered context factors such as political stability, migration of youths) in the design and delivery of project inputs and services? Rating- 1- High 2.- Medium/Fair 3. None 4. No Idea

Give reasons

23. In your opinion, what is the likelihood of financial and economic resources being available once the AF grant ends? 1- High 2. Medium/Fair 3. Little/none.
Give reasons for your response (Three reasons) and evidence if possible.

Q. 24. In your opinion, are there any financial or economic risks that may jeopardize sustainability of project outcomes? Response- 1- Yes, 2- No 3- No idea

Give reasons

Q. 25. In your opinion, are there any social or political risks that may jeopardize sustainability of project outcomes? Response- 1- Yes, 2- No 3- No idea
Give reasons

Q. 26. In your opinion, what are those risks that may reduce the level of stakeholder ownership to allow for the project outcomes/benefits to be sustained?

Give reasons

Q.27. In your opinion, do the various key stakeholders see that it is in their interest that project benefits continue to flow? Response- 1- Yes, 2- No 3- No idea

Give reasons

Q.28 In your opinion, did the project M&E system make the best use of existing (local, provincial, federal) monitoring and evaluation systems, including existing indicators? 1- Yes, 2- No 3- No idea.

28.1 Local: 1- Yes, 2- No 3- No idea.
Give reasons

28.2 Provincial: 1- Yes, 2- No 3- No idea.
Give reasons

28.3 Federal: 1- Yes, 2- No 3- No idea.
Give reasons

29. In your opinion, has the project included plans for feedback and to disseminate results from monitoring and reporting implementation as to allow for lessons learned and good practices identified to be shared with the wider community of adaptation planners and practitioners at all levels?

1- Yes, 2- No 3- No idea.

Give reasons

Q. 30. In your opinion, was the M&E activities well-funded for the project period?
Q. 31. Any suggestions/remarks
Q. 32. In your opinion, have we missed to include any important aspects which is important from the perspective of final evaluation? If yes, please mention them.

Checklist- 3: Checklist for WFP Officials/Project Support Unit

As you know the WFP-Nepal Country Office has commissioned our agency to undertake final evaluation of the CAFS-Karnali, we would like to ask you some questions regarding the operation and performance of the project. Your responses will be kept strictly confidential and remain with us. The information provided by you will be used only for the final evaluation of the project, and your identification will not appear in the report. Your responses will be used to generate good practices, learnings/lessons learned and to triangulate with the responses of other relevant agencies and key stakeholders only.

Name of Respondent
Position
Working from: (Check) 1-Central/Federation 2- Province 3-Local
Working for the project- 1- Less than 1 year 2-More than a year
Date of interview/interaction

Q. 1 In your opinion, to what extent the activity supported under CAFS-Karnali are relevant to improving resilience, reducing vulnerability, and increasing adaptive capacity at different levels?
Give reasons

Q. 2 In your opinion, how the implementation mechanism results (e.g. establishment of LPCU, deployment of Local Partners, WFP's local support, PCO/NPSC at the federation level and PPCU at the province level etc.) is appropriate for achieving expected results. Do you think the necessity for any improvements. If yes, where and how?
Give reasons

Q. 3 In your opinion, how have project activities contributed to improve resilience, reduce vulnerability and increase adaptive capacity of target group) (Rating in 1 to 5 likert scale) 5 High and 1- Very little.
Give examples for your response:

Q. 3 In your opinion, which of the project activities (e.g. cash based direct bank transfer for labour, small irrigation, MUS, post-harvest, plantations, capacity building (training, workshop etc.) contribute to concrete adaptation activities to anticipate and address adverse effects of climate change?

Activities

Q.4. In your opinion, of the different activities supported through CAFS-Karnali, which were in high demand from the beneficiaries and those by the local government/municipality.

Highly demanded activities by beneficiaries	High demand from the Local Government
1.	1.
2.	2.
3.	3.
4	4.

Q. 5 In your opinion, to what extent were the project activities adequate to increase adaptive capacity of the climate vulnerable, marginalized and poor beneficiaries, men and women? Rating in 1 to 5 likert scale)- 5 High and 1- Very little.
Give reasons

Q. 6 In your opinion, to what extent were the project activities provided environmental, social, and economic benefits to the target groups, the most vulnerable communities, specifically V1 and V2? Rating in 1 to 5 likert scale)- 5 High and 1- Very little.
6.1 Environment Benefits. Assessment
Give reasons

6.2 Social Benefits. Assessment
Give reasons

6.3 Economic Benefits. Assessment
Give reasons

Q.7. Has the project collaborate with the other projects engaged in food security improvements, agricultural, NRM and environment sector projects in the project districts, If yes, name of the projects and mode of collaborations.

Name of the projects

SN	Project	Districts	Mode of Collaborations
1			
2			
3			

Q.8. In your opinion, how the performance of the project has been influenced by external environment (factors), such as federalization on achievements of project results?

Response:
Give reasons

Q. 9. Indeed, several factors have contributed towards the achievements/non-achievements of the project outputs and outcomes envisaged by the project? Identify factors by their extent of contribution (first, second and third like this)

Contributory Factors by Order

5	

Q. 10 To what extent the project did spent the budget allocated to them annually? (Timely)

Year	Budget (Approved)	Actual spent
2018-19		
2019-20		
2020-21		
2021-22		

Q.11. Provide the project funding and expenditures (overall by components) as follows.

Components	Budget (Approved)	Actual spent

Q.12. In your opinion, to what extent of financial control mechanism instituted by the project / contributed tor informed decisions and planning for the successful implementation of CAFS activities in the field? Rating in 1 to 5 likert scale)- 5 Highly feasible and 1- Very little.

Give reasons

Q. 13. Did the project experienced shortage/ in-sufficiency to meet the stated objectives? 1- Yes 2- Sometimes and 3- Rarely 4- No.

Give reasons

Q.14. What have been the average times for the project cycle? Please indicate by type of the project/activities.

SN	Type of Project	Average time to complete the project cycle from the need identification to handover to the beneficiaries as applicable
1	Infrastructure project like irrigation	
2	Community building/construction	
3	Plantations (Fruit sapling)	
4	Training	

Q. 15 In your opinion, to what extent CAFS-Karnali has implemented mid-term results and findings?

SN	MTR recommendations (Major)	Implementation Status
1		
2		
3		

Q.16 Please mention those recommendations which you think could not be implemented or not relevant to the project.

1	MTR recommendations (Not implemented)	Reasons for non-implementation
2		
3		

Q.17How would you justify value for money from the perspective of the project side.

SN	Project activity/Example	Unit cost dimension	Time dimension	HR dimension

Q.18 How often the project identifies implementation/result challenges and responds accordingly? *1- Annually 2- Semi-Annual 3- Quarterly 4- Rarely 5- None.*
Give reasons

Q.19 In your opinion, the project has provided/allocated right staffing levels and skill mix? 1- Yes, 2- No 3- Can't say/No idea.
Give reasons

Q.20 To what extent the delivery of the project outputs and outcomes were influenced by COVID-19? 1-5 Likert scale where 5- Highly influenced and 1- None

Give reasons

Q.21. How often the project does update and adjust gender assessment in project activities? *1- Annually; 2- Semi-Annual; 3- Quarterly; 4- Rarely and 5- None*

Give reasons

Q.22 How the project responds the different needs of the target groups, including women and men? Give the mechanisms/process.

SN	Target Group	Mechanisms/Processes
1	Climate vulnerable people	
2	Women	
3	Very poor (Below the poverty line)	
4	V1	
5	V2	
6	V3	
7	V4	
8	Others, if any (Specify)	

Q.23 In your opinion, how the integration of GEEW into the design, planning, implementation of the CAFS contributed to project's effectiveness, improve efficiency, impact or sustainability and designing M and E?

Responses	Effectiveness	Efficiency	Impact	Sustainability	M and E
Evidence (1 or 2 activity/sub-project)					

Q.24. In your opinion, what have been the synergies between the CAFS Karnali intervention and other WFP interventions. 1-Very Good, 2. Good or None. Reasons
25. In your opinion, how project's outcomes are aligned with the Climate Change Policy 2011/National Climate Change Policy 2019 and National Adaptation Plan 2021-2050?

Give reasons

26. In your opinion, are there any financial or economic risks that may jeopardize sustainability of project outcomes?

27. In your opinion, are there any social risks that may jeopardize sustainability of project outcomes?

28. In your opinion, are there any political risks that may jeopardize sustainability of project outcomes?

29. In your experience, are LCPs/LGs (LPCUs) implementing and monitoring activities based on M&E plan prepared by the project. Give your responses and reasons.

Response:

Reasons

Q.30 How has the project made the best use of existing (local, provincial, federal) monitoring and evaluation systems, including existing indicators?
30.1 Local:

30.2 Provincial

30.3 Federal

31. Does project activities include plans for receiving feedback and dissemination of results from monitoring and reporting implementation so as to allow for lessons learned and good practices identified to be shared with the wider community of adaptation planners and practitioners at all levels?

Response- 1- Yes, 2- No 3- No idea.

Give reasons for your response (Three reasons) and evidence if possible.

1	
2	
3	

Q. 32. Any suggestions/remarks

Q. 33. In your opinion, have we missed to include any important aspects which is important from the perspective of final evaluation? If yes, please mention them.

Checklist- 4: Checklist for Government Line Agencies

Since the project CAFS-Karnali implemented in your constituency implemented by WFP-Nepal Country Office, will end from October 2022 (Kartik this year), we would like to ask you some questions regarding the operation and performance of the project. We strongly believe that you will respond to our questions. Your responses will be kept strictly confidential and remain with us. The information provided by you will be used only for the final evaluation of the project, and names of the respondents will not be disclosed. Please feel free to respond our questions. Your responses will be used to generate good practices, learnings/lessons learned and to design similar project activities for your area and elsewhere.

Name of Office
Name of Respondent
Position Agency Level: 1- Federal; 2- Provincial: 3- Local
Working from- 1- Central; 2- Province; 3- District;4- Local
Date of interview/interaction

A. Awareness on CAFS-Karnali

Q. 1 Are you aware of CAFS-Karnali project and its activities?
1- Yes 2- No/No idea (If no or no idea, go to 1.5)

If yes,
1.1 Have you or your agency/office participated in any activities organized/undertaken by the CAFS-Karnali?
1-Yes, 2- No. If yes give the following details

SN	Activity (What)	Municipality	Ward (Where)	Type of beneficiaries (Whom)	Participation mode (Guest/invitees, observer, experience sharing/resource person etc.)

Q.1.2 In your opinion, to what extent CAFS-Karnali activities are relevant to improving resilience, reducing vulnerability, and increasing adaptive capacity at different levels? (Rating in 1 to 5 likert scale)) 5 Highly relevant and 1- Very little relevant.

Give reasons

Q. 1.3 In your opinion, to what extent the CAFS-Karnali implementation mechanism is appropriate for achieving expected results (e.g. establishment of LPCU, deployment of Local Partners, WFP's local support, PCO/NPSC at the federation level and PPCU at the province level etc.) (Rating in 1 to 5 likert scale) 5 Very Suitable 1- Very little Suitable 0-No idea
Give reasons

Q. 1.4 In your opinion, of the different activities implemented by the CAFS-Karnali, which activities have actually supported to improve resilience, reduce vulnerability and increase adaptive capacity of target group)

SN	Activities
1	
2	
3	

If no/no idea,

Q.1.5 If No or no idea, give reasons for not knowing about CAFS-Karnali activities despite that the project was in implemented since last four years.
Give reasons

B. Awareness about CAFS-Karnali Local Partners

Q.2. Are you aware of the WFP's LCP for CAFS-Karnali or WFP-Field Office for in your district?
1- Yes 2- No/No Idea

If yes-
Q.2.1 If yes, Please give the name:.....

Q.2.2 Has your organization partnered or collaborated with LCPs or WFP-Field Office for any activities in the wards/RMs where CAFS-Karnali is present through LCP. Give the following details.

SN	Name of collaborated Rural Municipality (Where)	Activity (What)	Ward (Where)	Type of beneficiaries (Whom)	Nature of collaboration (investment partnership, training etc., resource leverage)- How

Q.2.3 Please describe how was your experience of collaboration with the LCP/WFP FO.

Q.2.4. Did LCP/WFP approach/contact your office to partner or collaborate. 1- Yes; 2- No.3-No idea

If yes, why the collaboration could not go through or succeed. Give reasons for your response

Q.2.5 Have you collaborated with WFP's local partners in RMs/municipalities other than CAFS-Karnali project areas- Yes/No.

If yes, give the following details.

SN	Name of collaborated	Activity	Type of beneficiaries	Nature of collaboration	Experience in short

	Rural Municipality (Where)	(What)	(Whom)	(investment partnership, training etc., resource leverage)- How	

Q.3. was your agency engaged or involved in LAPA formulation? Yes/No. Give reasons for your response. If No/No idea

C. Collaborations with other agencies working in Climate Change/Food Security Related Agencies other than WFP-LCPs.

Q.4 Has your agency collaborated with other service providers, specifically from non-governmental agencies to assist local people to improve resilience, reduce vulnerability, and increase adaptive capacity in responding climate risks. 1- Yes 2- No

If yes, give the following details.

SN	Name of collaborated Rural Municipality (Where)	Activity (What)	Type of beneficiaries (Whom)	Nature of collaboration (investment partnership, training etc., resource leverage)- How	Experience in short

D. Project's Relevancy

Q. 5 In your opinion, to what extent or how your district is vulnerable to climate change risks?>

Q.6 Name three activities that, in your opinion/experience are effective to anticipate and address adverse effects of climate change or climate risks?

1	
2	

Q.7 Of those activities implemented by your agency, which are in high demand from the beneficiaries.

Highly demanded activities by beneficiaries
1.
2.
3.

Q. 8. In your opinion, the risks that may reduce the level of stakeholder ownership to allow for the project outcomes/benefits could be mitigate?

Activities to increase ownership by the beneficiaries

1	
2	

Q. 9 In your opinion, how the sustainability of any projects could be ensured or improved?

Activities to ensure sustainability

1	
2	

Q. 10. Any suggestions/remarks with respect to CAFS Karnali activities.

5. Checklist for Focus Group Discussions

Key issues to be discussed during the FGDs will be guided by

(a) Majority of participants – Male/Female, Extent of Vulnerability (Group 1, 2, 3, 4)
(b) Nature and results of activity/projects supported by the project in the RM- Infrastructure project, farming/plantations, post-harvest loss minimization, NTFP collection etc.
(c) Duration of the project and
(d) Engagement of local governments, and other relevant issues

Before starting FGD

(a) Ensure that LCP staff member or WFP field office staff are not present during the FGD. Humbly request them to abstain during the discussions.
(b) Convince the participants that they will not be identified.
(c) Before the FGD- let the supervisor highlight the purpose of evaluation very objectively, and then only FGD should be initiated
(d) Ensure to inform that the FGD will take around 1-2 hours, and that their contribution will be highly appreciated and useful.
(f) Responsibility- Field Supervisor

Issues/ Questions for FGD

A. Climate related shocks and stresses

1. What are the major climatic related impacts/hazards in your locality?

2. How above climate related shocks have been impacting your villages?

3. How CAFS – Karnali assisted to address or cope with above climatic shocks and stresses?

B. Livelihoods Based interventions/Enterprise development

1. What are major interventions/support provided or implemented by the CASF-Karnali in your locality?

2. Are there any of these interventions designed and implemented by targeting to climate vulnerable households or poor and marginalized communities in your area? If yes, how were they identified and you were involved in the processes?

3. How dis above interventions supported you to:

- Cope with the climate related shocks and stresses (e.g., landslides, drought, floods)?
- Generate additional income and employment opportunities.
- Reduce seasonal migration to India/Migration for work.
- Undertake non-farm related livelihoods activities in the villages.

4. What is the opinion (general) of the group with regard to suitability or appropriateness of support provided by the CASF-Karnali? Please elaborate.

5. Have most of the people/V1 and V2 benefited from these interventions and how?

6. Has the project adopted any positive discrimination or targeting approaches to target climate vulnerable households? If yes how?

7. Were there any social and community disputes while implementing those interventions?

8. How did the project contribute to generate alternative livelihoods for those families/households?

C. Community Infrastructure

1. What are the major community infrastructures constructed in your localities?

2. How were the need for construction of these infrastructure identified and planned? Were there any participatory consultations carried our during the need identification and design phase?

3. Are you aware of any environmental and social safeguard measures or practices followed or implemented during the construction of those infrastructure? Please elaborate the responses and processes?

4. How did those community infrastructure support/contribute to address/respond to the climatic problems that your communities have been encountering at present?

5. Is the infrastructure constructed by the CAFS-Karnali are beneficial to the local communities? Please elaborate the responses and processes?

6. How were you involved in during infrastructure construction? Who were mostly involved in constructing this infrastructure?

7. Who have mostly benefited from those interventions and how? Are there any specific measures in place to involve the climate vulnerable and poor households during the infrastructure construction processes?

8. Did community get timely payment of your wages? How the payment were mode (processes) ? What are the challenges or problems you generally encountered for getting your salary/ wages?

9. What are the measures placed or designed by the community to repair and maintain the infrastructures created/developed/rehabilitated through the support of the CAFS Karnali -after its termination? Do you think that your local government or rural municipality will continue to support?

9. Can the community manage this infrastructure after termination of the CAFS-Karnali support? Please elaborate? What are the challenges in managing this infrastructure?

10. Are there any social and community disputes while constructing these infrastructures? What are they and how were they resolved?

D. Community Capacity

1. How has communities' awareness on the climate change changed currently compared to three years before?
(a) Increased (b) Same/No change (c) Decreased?

2. What are the underlying reasons for above assessment?

3. How do you rate your community capacity to respond to the climate change compared to three years before?
(a) Increase (b) Same/No change (c) Decrease?

4. What are the underlying reasons for above assessment?

5. Are you aware of any plan (for example, formulation of Local Adaptation Plan of Action- LAPA in short) being prepared to respond about climate change impacts in your village/locality? If yes, could you please highlight key features of the plan?

6. Who, in the group, was involved/knew about the LAPA prepared in the RM?

E. Natural resources

1. Has drinking water availability situation changed in your locality compared to three years before?
(a) Increased (b) Same/No change (c) Decreased?

1.1 What are the underlying reasons for above assessment? How the CAFS-Karnali has supported or contributed on it?

2. Has the irrigation water availability changed in your locality compared to three years before?
(a) Increased (b) Same/No change (c) Decreased?

2.1 What are the underlying reasons? How the CAFS-Karnali has supported or contributed on it?

3. Has Forest conditions changed in your locality compared to three years before?
(a) Increased (b) Same/No change (c) Decreased?

3.1 What are the underlying reasons? How the CAFS-Karnali has supported or contributed on it?

4. Has the use of non-conventional ways of irrigation such as rainwater harvesting, water pond construction, multiple use of water etc. changed in your locality compared to three years before?
(a) Increased (b) Same/No change (c) Decrease?

4.1 What are the underlying reasons? How the CAFS-Karnali has supported or contributed on it?
(a) Increase (b) Same/No change (c) Decrease?

G. Gender Mainstreaming

1. What the project has done to integrate the need of women and marginalized groups during the planning and implementing different interventions?

2. How have women and marginalized groups benefitted from CAFS-Karnali interventions?

3. Are any of activities led by women or marginalized groups? If yes, what are they?

4. What are the challenges that you have experienced to ensure women and marginalized group participation in community activities? How those challenges can be responded?

G. Community perception

1. What are the major strengths of CAFS-Karnali what you like about the CAFS-Karnali? And why?

2. What are the major weakness or that you don't like about the CAFS-Karnali? And why?

3 What were the good practices adopted by this sub-project which other should learn or replicate?

4. Are there economic, political and social risks to this project which could lead to collapse or end this project after the end of this sub-project?

Date: Location:

Name of RM- Ward
Number of participants
Male
Female

6. Checklist for Case Study/Observation

Target: Two per ward (Very Successful and Moderately Successful/failed)
Name of Intervention:

Year of Construction/Implementation

Total Cost:

Total beneficiaries:

1. What are the major climatic related impacts/hazards that these interventions aimed to address? Why was this intervention implemented?

2. What are the major activities carried out? How were the activities designed?

3. Are the climate vulnerable households involved during implementation? Any special measures put in place to ensure their active engagement?

4. How have the poor and climate vulnerable households benefited from the interventions?

5. What are the major impacts or benefits from the interventions? Who mostly benefitted from these interventions?

6. How this intervention had enabled the households to (a) Cope with climate related impacts (b) increase income and employment opportunities and (c) Reduce seasonal migration

7. Are there any mechanism designed for ensuring sustainability of these interventions? If yes what are they?

8. What are the challenges for sustaining the achievements?

9. What are the major strengths or what you like about intervention? And why?

10. What is the major weakness or that you don't like about intervention? And why?

Annex XI: Field Work Agenda

The role and expertise of all field team members were as follows:

Field team member	Expertise	Role
Field manager	Minimum qualification of master's degree in Social Sciences, with more than 10 years of experience in survey administration, logistics and experience in conducting fieldwork for large-scale surveys.	Responsible for overall field work. Interface between research team and field team
Supervisors	Minimum qualification of bachelor's degree in Social Sciences (Education), preferably teachers, with more than 5 years of experience in survey administration, logistics and experiences in conducting fieldwork for similar assessments.	Collection of qualitative data at ground level. Ensuring team wise data collection and quality
Enumerators	Minimum qualification of bachelor's degree in Social Sciences (Education), preferably teachers, with more than 5 years of experience in teaching primary students. Previous experience in surveys and assessments will be preferred.	Data collection
IT expert	More than 5 years of experience in designing CAPI tools.	Development of software for data collection

The field team members were organized by the evaluation team under the leadership of the Team Leader, in consultation with the WFP team. NARMA had roster of enumerators and supervisors, which were hired after the inception workshop with stakeholders.

Field team

A total of 6 field teams (at least one qualitative interviewer and 2 quantitative enumerators) and 3 field supervisors were deployed to conduct survey. The survey was carried out between 11 to 31 December 2022.

No of Team	District	Municipalities	Survey wards		Field Team Deployed		
			Total	Selected Wards number	Field supervisor	Qualitative interviewer/ Supervisor	Quantitative interviewer
1	Jumla	Tila	3	6, 2 & 8	1	1	2
2		Tatopani	2	7 & 8		1	2
		Hima	1	7			
3	Kalikot	Palata	4	2, 3, 9, 7	1	2	2
4		Pachaljharna	3	4, 7, 8		1	2
5	Mugu	Soru	3	1, 9,10	1	1	2
6		Khatyad	4	1,3, 7, 11		2	2
		Total	20		3	8	12

Field team members

SN	District (Palika)	Name	Contact number	Assigned Role
1	Kalikot (Palata and PachalJharana)	Shankar Neupane	9860685603	Supervisor, Palika and ward chair interview
2	Mugu	Balkrishna Sharma	9847245535	Supervisor, Palika and ward chair interview
3	Jumla	Ram Datt Pant	9843651934	Supervisor, Palika and ward chair interview
4	Tatopani +Hima (Jumla)	Ms. Ankita Thapa	9849815511	Group leader / Qualitative
		Ms.Rita Tamang	9840067921	Surveyor
		Ms. Chanika Lama	9843713274	Surveyor
5	Tila (Jumla)	Ms. Prativa Karki	9841463206	Surveyor
		Ms.Luna Laxmi Uprety	9841769065	Group leader / Qualitative
		Ms. Kalpana Gharti Chhetri	9841505258	Surveyor
6	Palata (Kalikot)	Dipak Poudel	9840067305	Surveyor
		Mohan Sapkota	9841116101	Surveyor
		Laxmi Prasad Devkota	9841483330	Group leader / Qualitative
		Nirmal Kumar Chhetri	9746307691	Group leader (sub) Qualitative
7	Pachal Jharana (Kalikot)	Shibaji Budhathoki	9844399119	Surveyor
		Umesh Dhakal	9848614687	Group leader / Qualitative
		Keshab Datt Joshi	9861471724	
8	Khatyad (Mugu)	Devendra Pokhrel	9842664987	Group leader (sub)/ Qualitative
		Niraj Rana	9803500139/ 9849909961	Surveyor
		Laxmi Prasad Upadhyay	9840802476/ 9848726601	Group leader / Qualitative
		Mohan Singh Bhat	9848777114	Surveyor
9	Soru (Mugu)	Sagar Prasad Acharya	9745328902	Surveyor
		Gyenendra Parajuli	9841871580	Group leader / Qualitative
		Tekendra Bogati	9860557326	Surveyor

Field work schedules

Day	Date	Activities	Remark
1	11 Dec 2022, Sunday	• Travel from Kathmandu to assigned district. • Reach assigned district head quarters	Air & Rented vehicles
2	12 Dec 2022, Monday	• Travel to assigned rural municipalities	
3	13 Dec 2022, Tuesday - 31 December 2022	• Select settlements randomly in selected wards based on CAFS-Karnali support. • Initiate quantitative survey (First ward) • Conduct qualitative interview (First ward)	Field team will plan within the assigned ward and select three settlements based on CAFS-Karnali support randomly (Settlements without CAFS-Karnali support will not be selected
20	31 Dec 2022,	• Send all data and work log. • Validate data received and depart from the Field	

Review and reflection workshop:

NARMA organized three-day reflection workshop between 3rd to 5th January 2023, aiming to understand field findings focusing on the evaluation questions. Following activities were carried out during the reflection workshops:

- Discuss on major data patterns, especially on outliers and explore justification for the same.
- Share field observation and field findings focusing on key question asked by the evaluation team.
- Discuss on the field report of the supervisor and enumerators, to develop a shared understanding.

Qualitative interview at the federal, provincial and local level

Experts conducted qualitative interviews with key stakeholders like with Government Officials; district officials, MoEF, at the federal and the provincial level, LCPs as well as local government and WFP Office at Surkhet and Kathmandu.

The experts conducted field mission from 17 to 25 December2023 by dividing in two teams for field observation including interaction with the district and provincial stakeholders.

Annex XII: List of Stakeholders Consulted

SN	Respondents
1	WFP officials (Country team)
2	Project personnel (WFP and MoFE)
3	Ministry of Forest and Environment Officials
4	Ministry of Industry, Tourism, Forest and Environment (Provincial) Officials
5	Other provincial level stakeholders (MolMAC, MoITFE)
6	Divisional Forest Officials
7	Implementing partners staff
8	Local government elected leaders (Present and ex-leader)
9	Local government officials
10	Other stakeholders
11	Women respondents
12	Beneficiary households

Annex XIII: Data Quality Assurance Mechanism

NARMA has ensured quality of data throughout the process which include evaluation design, questionnaire development, training of field staff, random selection of respondents, conducting computer assisted personal interview (CAPI) as well screening data and editing, upload of data etc, and adhere to rigorous quality standards as per the ToR.

NARMA is aware of technical notes and guidelines prepared for Evaluation Quality Assurance System (EQAS) by the WFP. This has been reviewed and its key elements will be incorporated in the training guidelines/manual for field survey team.

Ensuring the quality of data and analysis has remained a priority throughout the entire assignment. All aspects — including survey design, questionnaire development, training of field staff, selection of respondents, conducting interviews, field as well as office editing, upload of data, etc. —adhere to rigorous quality standards. Ensuring data quality is not just restricted to the data collection phase, but also encompasses pre-and post-data collection phases as well. The measures adopted during these three stages i.e., Preparatory (Pre-Data Collection), Execution (During Data Collection) and Analytical (Post – Data Collection) will have uniformly strenuous quality checks and standards.

There are multiple internal quality checks, control, and feedback mechanisms implemented by NARMA during a project to ensure that the quality of work output being provided adhere to the expectation of our organization and the WFP. On the WFP's side, adequate quality checks have been planned by engaging an internal monitoring group, Project Team (PT) as well as external quality control such as Decentralized Evaluation Quality Assurance System and partner engagements.

Pre-data Collection Phase: During this stage, following quality assurance protocols have been put in place to ensure that our tools are developed to capture the required information.

- Development of data collection tools: To understand the changes in the socio-political context of regions where the programme is being implemented, the evaluation team reviewed secondary literature, relevant reports, and recent studies. The context, as necessary, along with learnings from the baseline and midterm has been incorporated into designing tools and evaluation. It is proposed that the study shall be carried on Kobo toolbox software. Using Kobo tool shall aid in quicker data pooling, effective monitoring, and faster data analysis. The data entry form developed in Kobo tool also had checks and measures to eliminate obvious entry errors i.e. Validity checks – to ensure that all fields are entered and no answer field is blank, Range Checks- to ensure that value entered falls between a permissible limit (ex: if the age of a respondent is beyond a normal value a pop-up window would apprise the investigator of the same) & Skips- the various skips and logical checks from the questionnaire will also be incorporated in the Kobo tool data entry form. Kobo tool entry app was developed after rigorous rounds of testing (both internal & external) and therefore, the data were gathered from the field were in readily usable form.

- Translation of tools/formats in local languages: To ensure that the questions of interest are properly communicated to the respondents, survey instruments were translated into Nepali. The translation focused on all key aspects: semantic equivalence, conceptual equivalence, and normative equivalence of items.

- Alpha and Beta-testing of Digitized Tools: Prototype Testing: Since data collected from the field were directly fed into servers and dashboards at near real-time frequency, the data flow channel was thoroughly pre-tested before training and survey work. The prototype dashboard was developed in parallel with the questionnaires. The pro-type was thoroughly tested internally before the pilot study, during the pilot study, and once after the pilot testing. Before beneficiary interview takes place (quantitative survey), alpha and beta testing of the digitized tool was carried out. Learnings from the

beta testing was incorporated. Alpha testing was performed at the developer's site (NARMA by an IT professional). Beta testing was performed at the product's end-user, i.e., by the surveyors.

- Selection of Field Team Members: NARMA recruited enumerators who were fluent in the regional language and understand the local context. Since NARMA had an updated roster of field surveyors, the following criteria were strictly followed to select survey supervisors and enumerators in this assignment:
  - Experienced in computer assisted persona; interview (CAPI)
  - Good interpersonal skills with friendly voice
  - Comfortably conduct interviews in Nepali and regional language
  - Priority to those who have conducted field surveys in Karnali and Sudurpashchim considering Nepali languages used in these regions.
  - Priority to female surveyors
  - Demonstration of capability in the training (Performance in the training).

- Frequent communications with international expert. The TL has frequently communicated and updated the latest status to the international expert. Prior to receiving approval on data collection tools from the Evaluation Manager, advice from the international expert was received.

- Intensive training: Field team must understand the study objectives to ensure quality data collection. A training curriculum comprising of the content, schedule, and data collection protocols was developed and shared. The enumerators were recruited based on their educational attainment, their ability to spend long duration in the field, and their prior experience with similar kinds of surveys. Adopting the philosophy of "learning-by-doing", the training exercise involves a detailed component of classroom sessions coupled with on-field practice sessions.

  The field team responsible for data collection went for four-day training session, focusing on
  - Use of /tablet as a means of data collection
  - Context of the CAFS-Karnali and its objectives
  - Quantitative and qualitative data collection techniques
  - Ethical code of conduct during data collection

NARMA implemented multiple internal quality checks, control, and feedback mechanisms to ensure that the quality of work output. The supervisor continuously monitored the survey by spot check and back check interview.

Data Collection Phase

- Macros for data cleaning: It is pertinent to note that data cleaning should exist in parallel with the data collection. In reality, one of the essential elements of data cleaning is to identify and spot erroneous issues and flag them off to the data collection team prior to them leaving the village. In order, to ensure the same, a Centralized Quality & Processing Team at NARMA builds in a customized macro for instantly identifying issues emanating from data collection. Data collected by the enumerators were uploaded to the cloud server and linked with the project dashboards. Once the data was uploaded it is parsed through this macro, and erroneous issue were identified and flagged.

- Direct supervision by the team leader and thematic experts: The whole survey design, selection of enumerators, training to the enumerators, data collection processes and timeliness of activities were directly monitored by the team leader with the assistance of thematic experts and survey manager. The survey manager ensured that the agreed quality control measures were followed at every step of the survey, and report to the team leader when any discrepancies were found/noted.

- Back Checks/ Re-interviews: A powerful tool in checking the quality of the data is to systematically check the information provided by the respondents. This was done by conducting a short re-interview/back check in some households and checking the results with what was collected by the investigator. Re-interviews helped to reduce the types of problems that affect the accuracy of the

survey data. The supervisors re-interviewed 2% of the sample of the questionnaires to validate that the data being collected is accurate.

- Logical and Consistency Check: As the data were collected using a mobile device/tablet; a logical and consistency check was put into place to minimize human error. Uploaded data was regularly reviewed by survey manager to check the consistency of the data, facilitating the immediate correction if any required with the data collection process.
- Frequent communications with international expert. The TL frequently communicated and updated the latest status to the international expert.

- Regular debriefing and discussion: During the data collection, the team shared their learning daily and consult the survey manager and team leader if any problems arises.

Data Analysis Phase

The following activities will be undertaken during the data analysis phase

Data validation and cleaning: Data validation and cleaning is a crucial step in any kind of large-scale survey. The data cleaning protocol will primarily be guided by below three principles:

(a) Validity Check*:* It shall look at one question field or cell at a time and ensure that the record identifiers, invalid characters, and values have been accounted for; essential fields have been completed (e.g., no quantity field is left blank where a number is required); specified units of measure have been properly used; and the reporting time is within the specified limits.

(b) Range Checks*:* For data fields containing information about a continuous variable e.g. age, income etc., observations should fall within a specified range.

(c) Consistency Checks*:* Often certain combinations of within-range values of different variables are either logically impossible or very unlikely. Data entry Program shall have some checks to ensure data consistency. These checks will not eliminate all the errors introduced during the data collection, coding, and data input phases, but certainly minimize the errors.

Annex XIV: Project Performance Rating and Assessment

The AF final evaluation guideline required that project should have an overall rating. Considering this project will be rated and evaluated against (a) achievements of outcomes (b) Sustainability of the outcomes and (c) Contribution to AF fund goals and targets and (d) quality of monitoring and evaluation. It will first narrative on the existing situation and provide rate based on assessment against each criterion.

Achievements of Outcomes: Achievements of outcomes will be assessed against six based on ratings of achievements in project outcomes for each evaluation criterion (relevance, effectiveness, and efficiency) based on a multi-dimensional analysis. The project will be rated in terms of the following components and rating criteria. The assessment will be based on the findings/conclusions from the questions in evaluation matrix. Rating is based on the judgement and level of performance assessed by the evaluation, documents received and other contextual factors. Likewise, the rating will also be based on major and minor issues as judged by the evaluation team.

Rating scale	**Explanations**
Highly satisfactory (HS)	had no shortcomings in outcome achievement in terms of relevance, effectiveness, and efficiency
Satisfactory (S)	had minor shortcomings in outcome achievement in terms of relevance, effectiveness, and efficiency
Moderately satisfactory (MS)	had moderate shortcomings in outcome achievement in terms of relevance, effectiveness, and efficiency;
Moderately unsatisfactory (MU)	had significant shortcomings in outcome achievement in terms of relevance, effectiveness, and efficiency
Unsatisfactory (U)	had major and severe shortcomings in outcome achievement in terms of relevance, effectiveness, and efficiency

Sustainability of Outcomes: AF final evaluation should assess the likelihood of sustainability of outcomes and progress towards impact at project/programme completion and provide a rating for this. Assessing the sustainability of outcomes includes evaluating at least four dimensions of risks to sustainability, i.e. Financial and economic risks, socio-political risk, Institutional framework and governance risks, and Environmental risks and how these risks comprise linkages from outcomes to impacts: The sustainability and linkages towards impacts and goals of project/programme outcomes will be rated based on an overall evaluation of the likelihood and magnitude of the potential effect of the risks considered within that dimension. The following ratings will be provided:

Rating scale	Explanations
Likely (L)	There are no or negligible risks that affect this dimension of sustainability/linkages
Moderately likely (ML)	There are moderate risks that affect this dimension of sustainability/linkages
Moderately unlikely (MU)	There are significant risks that affect this dimension of sustainability/linkages
Unlikely (U)	There are severe risks that affect this dimension of sustainability/linkages

Contribution of to the Adaptation Fund Targets, Objectives, Impact, and Goal: Final evaluation should assess how project outcomes and possible impacts have aligned with, and how they have contributed to, Adaptation Fund goals, impacts, and outcomes. This rating is based on ratings of contribution to goals, impacts, and outcomes.

Rating scale	Explanations
Highly satisfactory (HS)	had made clear contributions to the Adaptation Fund targets, objectives, impact, and goal
Satisfactory (S)	had minor shortcomings in achieving contribution to the Adaptation Fund targets, objectives, impact, and goal
Moderately satisfactory (MS)	had moderate shortcomings in achieving contribution to the Adaptation Fund targets, objectives, impact, and goal
Moderately unsatisfactory (MU)	had significant shortcomings in achieving contribution to the Adaptation Fund targets, objectives, impact, and goal
Unsatisfactory (U)	had major to severe shortcomings in achieving contribution to the Adaptation Fund targets, objectives, impact, and goal

Quality of monitoring and evaluation: The final evaluation should assess the quality of the project/programme M&E systems, focusing on four dimensions namely (1) M&E plans; (2) indicators, (3) baselines; and (4) alignment with national M&E frameworks. The rating of M&E will be based on the overall quality of the four dimensions described above

Rating scale	Explanations
Highly satisfactory (HS)	no shortcomings in the project M&E system
Satisfactory (S)	minor shortcomings in the project M&E system
Moderately satisfactory (MS)	moderate shortcomings in the project M&E system
Moderately unsatisfactory (MU)	were significant shortcomings in the project M&E system
Unsatisfactory (U)	major shortcomings in the project M&E system

Annex XV: Project Outputs Assessments

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
1.1.1 Train and mobilize officers and community representatives at village and district to design, implement and monitor local adaptation strategies	1. No of CBO/User groups, community mobilisers, local-government (Rural Municipality - RM) officials and technical staff trained.	Provide training to CBOs/ and local user groups	Number	42	129	307	
		Provide training to Officials (agriculture, livestock, forestry, irrigation) on agricultural drought management practices	Number	50	76-	152	
		Organize TOTs for regional agriculture extension officials by NARC	Events	3	-	Not reported	Not assessed
		Provide training to community mobilizers	Number	420	350	83.3	
		Prepare climate resilient agriculture manual	Number	1	1	100	Climate Smart Village Approach Paper prepared, instead climate resilient agriculture manual. Additionally, the project supported establishment of

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
							Climate Smart Villages
1.1.2 Local and food security and climate adaptation planning supported	2. Seven municipal plans are prepared through community participation	LGs to incorporate climate risks and adaptive actions in their annual development plans	Number of LGs	7 municipal plans are prepared through community participation	7	100	LGs have initiated to incorporate climate risks and adaptive actions in their annual palns.
1.1.3 Gender and social inclusion are well integrated into the adaptation planning processes	3. No of community-based women's groups established and functioning, 4. Marginalised groups participate in adaptation planning process, 5. Each local-government adaptation plan identified the most vulnerable HH including women-headed household	All scheduled castes and communities participate in workshops	Not specifie d	Not specified	33% women and 20% people from ethnic minoritie s have participat ed in LAPA formulati on process	100	Of 91,686 climate vulnerable people benefitted from project activities, 48% female benefitted from capacity building and livelihood diversification related project interventions
		Formation of women's group in each RM	No	7	63	900	

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
		Participation of women's groups have 50% participation in the planning process	Percent	50	33	66	
		7 local plans with vulnerable HHs and specific adaptive actions identified	No of plans	7	7	100	
1.2.1 Local adaptation plans integrated into sector-wise and local level planning process	6. Local-government (LG) plans prioritise adaptive actions identified	Incorporation of climate risks and adaptive actions in LGs annual development plans incorporate Revised design standards for small rural infrastructure	LG	7	7	100	Review of the annual plans show that the LGs have initiated to incorporated climate risks and adaptative actions in their plans, despite none of seven LPS reported to have incorporated climate risks and adaptive actions
1.2.2 Integrate climate resilience to planning processes and development projects of key	7. Revised design standards for small rural infrastructure	Design standards for small rural infrastructure	Not specified	Integrated guidelines on the design and construction of local infrastructures developed at RMs	100	*100*	

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
national ministries.	8. Demo of forest carbon measurements and carbon financing established in 2 districts	Conduct demonstration for carbon measurements and carbon financing	Number	2	Not reported	Not assessed	Adjusted in consultation with and advise of the Project Manager since it will be carried out by another division under the MoFE (REDD+ Cell). But no documentation
	9. Regional and national agriculture research stations invest more in climate resilient models and their dissemination	Review investment of regional and national agriculture research stations invest more in climate resilient models and their dissemination onf Rs.	Not specified	Not specified	Not reported	Not assessed	Project adjusted considering irrelevant, but no documentation
1.2.3 Conduct periodic assessment and document project lessons for dissemination at community, district and national level	10. Knowledge products generated	Case studies generated	No	10	74	740	
		Economic, social, and environmental impact analysis conducted	Number	2	2	100	Gender Impact Assessment and, Lessons Learned Document
	11. No of dissemination programmes for community	Organize community exchange visits	Events	20	42	210	
		Organize community workshops	Events	10	253	253	
		Media field tours organized	Events	4	20	500	

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
		Community radio programs developed in districts	Events	2	3	150	
2.1.1 Provide increased income opportunity for poor households, especially during agricultural lean season, through physical and natural livelihood-related assets	12. Community Asset Score	Each RM implements at-least 3 priority (as per the prepared plan) assets building program within the project period.	Number	21	118	562	
2.1.2 Increased local availability and access of food and nutrition through better storage and value addition in all target RMs.	13. The food gap reduced.	HHs consume more food types, locally available food;	Percent	Not specified	Not reported	Not assessed	According to the Project APR, a total of 4233 climate vulnerable people (84% female) benefitted through different activities under this output during the reporting period.
		Creation of food processing centre in 7 RMs	Number	7	138	197	15 solar driers, 18 improved water mills and 105 Dhikis.

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
	14. The number of food preparation and storage technologies introduced	Local food markets created in 7 RMs	Number	7	Not reported	Not assessed	According to the project, the food value chain, supply chain and markets are already established and functional as part of state-market relationship. There are adequate number of agricultural and no-agricultural markets, traders and processors and value chain actors in all districts. Hence, there is no need of establishing a separate food market.
		Local Seed Banks Created in 7 RMs	Number	7	7	100%	
	15. The number of women using new technologies or methods related to	Women in target HHs use food preparation and storage technologies introduced by project	Percent	60	2.5	4.2%	This indicator is about the use of food preparation and storage technologies

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
	food preparation/ storage						promoted by the project, and the MoV in the project's result framework is the survey at the start and the end of the project. The BLS did not report value. Nevertheless, the project reported that provided orientation/technical guidance to women through women groups/mother groups (88% i.e. 2210 female out of 2509), 429 (33%) out of 1303 were female to adopt the storage technologies in the form of super grain bag, metal bins,etc
2.1.3 Improved and adapted current crops and	16. Key informants established in each RMs.	No of key informants trained (local resource person)	Number	42	110	261	

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
livestock management practices	17. Improved agricultural and livestock management practices established	Provide training to target farmer/HHs with at least 50% women	Percent	85% (Approx. 7200 HHs)	Kitchen gardening training-2,509; post-harvest training-1,214; Drought Resistant climate resilient cropping practices-3,162; climate smart agriculture 1,196	81.9	Climate resilient agriculture practice training 3162 HHs, FFS-1196 HHs, Agriculture and Livestock Insurance-1538
	18. Number of women adopting improved agricultural and livestock management practices	Proportion of women trained to use improved agricultural and livestock management practices	Percent	>50	61.3%	104%	
2.1.4 Increased income through livelihood	19. Increased Income through livelihood	Increase income from the forest based NTFPs	Percent	30%	The ELS Survey revealed	Not assessed since the BLS did not report	Despite the project reported the establishment of 39

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
diversification using local resources	diversification using local resources				2.6% HHs increased average annual income by Rs. 1114	the income level through NTFPs , so no data to compare the project results	types of 138 (87 led by women) rural micro-enterprises (such as bamboo work, herbal tea and spices processing, vegetable, fruits, NTFPs and potato processing, sisnoo processing, proportion of HHs reporting increased income from the forest based NTFPs is quite low..
2.1.5 Renewable energy-based systems introduced to support women-led enterprises	20. Women groups formed for cash for assets activities	Form women's groups for participate in cash for livelihood and income generating activities;	Number of groups	Not specified	801	100	According to the PPR, 801 HHs benefitted (285 benefitted from ICS and 516 from Water Mills and Solar driers, but number of women groups not specified. The estimated value is 40 @ 20 women per group)

Output	Indicators	Activities	Unit	EoP Target	Progress	Achievement vis-a-vis target, percent	Remark
	21. Women's well-being increased through community service centres	Women's service centres established	Number	7*	8	114%	
Overall performance (progress vis-à-vis targets):	EoP Targets met by 100% and above	Targets vis-à-vis achievements: 100 % and above - 80.7%; 75 to 99%- 2 (7.7%%); 50 to 74%- 2 (7.7%), Less than 50 % -1					Targets, which are not reported by the projects, are not taken into account.

Sources: Prepared based on PPRs, project implementation records, Endline Survey Result

Annex XVI: Results of BLS, MTR and FE Compared by RF Indicators and Districts

SN	Indicators	Unit	Jumla			Kalikot			Mugu			Overall		
			BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE
	Objective 1: Strengthened local capacity to identify climate risks and design adaptive strategies													
1	Target population aware of predicted climate change impacts and appropriate responses	%	85.3	99.1	83.8	89.3	100	82.5	74.5	98.2	88.9	81.8	98.8	85.1
2	Women within target population aware of predicted impacts	%			67.1			75.0			67.5			70
	Objective 2: Diversified livelihoods and strengthened food security for climate vulnerable poor in target area													
3	Target households with stable and climate resilient sources of income													
	HHS with climate resilient income	%	38.4	65.2	97.2	26.4	93.4	96.8	25	62.8	82.1	30.9	69.1	91.8
	Climate Resilient annual income of HHS	RS	1,44,817	73738.4	134431	1,51,037	1,06,425.7	186558	1,56,637	1,39,063.2	184520	1,49,539	1,06,509	170206
4	Women engaged in new income generating ventures													
	HH engaged	%			24.5			4.4			8.3			11.8
	Women engaged	%	-	38.4	19.9	-	44.3	4.0	-	20.1	7.1	11.2	30.5	9.9
	Women Leadership	%			10.2			1.6			4.0			5.0

SN	Indicators	Unit	Jumla			Kalikot			Mugu			Overall		
			BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE
5	Target Households report better and greater access to natural resources	%			50.1			61.5			58.2			56.9
	Women Report better access natural resources	%			48.6			62.6			64.2			59
6	Proportion of households with improved access to water for agriculture	%	50.4	83	83.8	10.4	62.3	87.3	32.8	95.7	91.7	36.1	85.5	87.8
7	Proportion of Households with Improved Access to Water for Drinking Purpose	%	99.2	96.4	99.5	88.8	95.1	98.8	99.6	96.3	99.2	97.4	96.1	99.2
8	Percent households engaged in/benefitted from Multi-Use Water Systems (MUS) technology	%	2.3	5.5	53.7	11.2	16.4	70.6	0.4	17.0	40.1	3.2	11.3	54.9
9	Percent of households have access to forest products and improved soil quality	%	80.4	96.3	99.1	34.5	86.9	96.4	57.0	93.8	96.4	62.8	93.8	97.2
10	Improved status of forest resources	%	18.1	40.2	31.5	86.1	29.5	49.6	42.5	38.4	66.7	40.2	37.7	50.1
	Outcome Indicators													
	Proportion of HHs implementing measures to adapt to climate change predicted impacts													
	Practicing	%	75.1	94.6	52.8	89.3	98.4	51.6	55.8	96.3	20.2	70.2	96.1	41
	Women respondent practicing	%			44.0			42.5			12.3			32.4
11	Targeted institutions and community groups have increased capacity to reduce climate change risks in development practice	%			2.4			2.6			0.8			1.9
12	Household income	RS	85036	132,817	167297	54321	125,641	244403	61157	169,66	231587	69990	149451	216786

SN	Indicators	Unit	Jumla			Kalikot			Mugu			Overall		
			BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE
13	Percentage decrease in negative coping strategies													
A	None	%	19.4	33.9	28.7	25.6	49.2	61.5	40.5	42.1	81.3	28.8	40.7	58.6
B	Stress	%	58.1	60.7	33.3	51.7	50.8	32.1	35.1	54.9	15.5	47.9	56.1	26.7
C	Crisis	%	4.5	0.9	5.6	1.2	-	0.4	5.6	2.4	0.8	4.3	1.5	2.1
D	Emergency	%	17.9	4.5	32.4	21.4	-	6.0	18.8	0.6	2.4	18.9	1.8	12.6
14	Municipal plans are prepared through community participation													
	HH aware	%			34.3			30.2			27.4			30.4
	HH participating	%			22.2			19.0			24.2			21.8
15	All scheduled castes and communities participate in workshops	%			6.5			14.3			6.7			9.3
16	85 target farmer households trained/equipped (approx. 720 HHs) (Output 2.2.4)													
	Capacity Building	%			3.2			8.7			8.7			7.1
	Infrastructure Support	%			57.4			55.2			64.7			59.2
	Livelihood Support	%			87.5			94.8			52.4			77.8
	Total	%			95.4			98.0			83.7			92.2
17	Improved agricultural and livestock management practices													
	Receiving Training	%			7.4			13.1			6.7			9.2
	Adopting learned skills	%			6.0			11.5			4.0			7.2
18	Income from forest based NTFP increased by in target													
	HH generating	%			8.3			0.0			0.4			2.6
	Average income from NTFPs (NRs)	Nrs/ HH			3685			0			24			1114

SN	Indicators	Unit	Jumla			Kalikot			Mugu			Overall		
			BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE	BLS	MTR	ELS/FE
19	Targeting Women, poor and marginalized	%			51.9			44.4			35.7			43.6
20	Physical Capital (Community Infrastructures)													
	Supported construction	%			98.6			88.1			73.8			86.3
	Benefitted construction	%			75.5			71.8			68.7			71.8
	Participated construction	%			94.9			73.8			67.1			77.8
	Average employment days	Days			31			29			12			24
	Average income (HHs)	RS			10,092			23,197			9,880			14,605
21	Food Consumption Score													
	% Of HH with Poor	%	0	0	0.9	0	0	2.8	0	0	0.0	0	0	1.3
	% Of HH with Border Line	%	7.1	8.9	26.9	28.3	21.3	19.8	3.6	11.0	5.2	9.7	12.2	16.8
	% Of HH with Acceptable	%	92.9	91.1	72.2	71.7	78.7	77.4	96.4	89.0	94.8	90.3	87.8	81.9
22	Economic Capacity to Meet Essential Needs (ECMEN) Average Expense	%		86.6	67.6		85.2	53.2		92.7	69.4		89.3	63.2
23	Rate of small holder post-harvest loses(Zero food initiative) - CAFS Post-harvest loss to the total production (Cereals)	%			1.3			0.8			1.6			1.2
24	Gender role in household decision making													
A	Use of cash vouchers	%		52.4	57.9		44.3	49.6		65.2	96.0		55.2	68.3

Narratives	Indicators	Data source	Unit	Target	Endline (ELS)	Achievement (%) [125]	Status	Remarks
Outcome 1.1 Climate-vulnerable and food insecure poor actively participate in developing climate risk reduction strategies and actions	No and type of climate adaptation strategies identified and implemented at local level		Number	None	11	100%	Achieved	List of adaptation strategies are provided in the text
Outcome 1.2 Targeted institutions and community groups have increased capacity to reduce climate change risks in development practice; at local, provincial and federal level.	Capacity of all types of institutions (federal, provincial and local Government) mentioned above developed	Stakeholders' consultation/ FGDs	NA	Not specified		Federal- No evidence Province- No evidence Local- To a some extent, awareness	Partially achieved	
	Capacity for adaptive action planning, design, implementation and monitoring increased.	Stakeholders' consultation/ FGDs	NA	Not specified		Partially achieved	Partially achieved	Awareness but no specific climate adaptation action at local level
	Priority actions remaining by year 3 of project are funded by regular development program	CAFS-Karnali Report	%	40		No evidence	Partially achieved	Given that priorities identified in LAPA correspond to local needs and priorities, many activities prioritized in LAPA will be obviously funded by the LGs through their own resources, province and local government sources, the ET assessed partly achieved because

[125] When achievement is more than 100% or beyond, , achievement is considered as 100%

Narratives	Indicators	Data source	Unit	Target	Endline (ELS)	Achievement (%) [125]	Status	Remarks
								LGs were yet to own the LAPA and mainstream in the local planning processes. Newly elected LG leaders and officials are yet to understand, internalize and institutionalize LAPA. No assessment carried .
	Sub-total						**Partially achieved**	
	Overall						**Achieved**	
Outcome 2 Livelihoods are diversified and strengthened, and livelihood assets and access to food for climate vulnerable households are improved	Average HH income	HHs survey	NRs	NA	216,786	Achieved	Achieved	239% increased compared to the BLS
	% of HHs adopting no negative livelihood based coping strategies (stress, crisis, emergency)	HHs survey	%	75.0	58.6	78.1	Partially achieved	Decreasing trend of HHs reporting negative coping strategies, improvements but target remain
	Women in target households report increased income through new introduced venture	HHs survey	%	50.0	100	100.0	Achieved	Supplementing HHs income
	Percentage decrease in negative coping strategies							

Narratives	Indicators	Data source	Unit	Target	Endline (ELS)	Achievement (%) [125]	Status	Remarks
	Proportion of Households with Different Coping Strategies							
	Sub-total					**92.7**	**Partial achievement**	
	Objective						**All achieved**	**100%**
	Outcomes						**Partially achieved**	**2 targets- Fully achieved** **5 targets- Partially achieved**

Annex XVII: Project Results Disaggregated by Respondent Categories

SN	Indicators	Unit	Overall	Household Head		Ethnicity/ Caste		Climate vulnerability		Disability		Respondents		
				Male (n =615)	Female (n =105)	Dalit (n =159)	BCTS (n =561)	High (n =518)	Low (n =202)	With (n =18)	Without (n =702)	Youth (n =408)	Adult (n =269)	Elderly (n =43)
	Objective 1: Strengthened local capacity to identify climate risks and design adaptive strategies													
1	Target population aware of predicted climate change impacts and appropriate responses	%	85.1	85.2	84.8	79.2	86.8	82.8	91.1	77.8	85.3	85.3	85.5	81.4
		p value		0.906		0.018*		0.005*		0.374		0.774		
2	Women within target population aware of predicted impacts	%	70	67.8	82.9	64.8	71.5	68.7	73.3	61.1	70.2	73.6	67.1	23.8
		p value		0.002*		0.104		0.232		0.405		0.000*		
	Objective 2: Diversified livelihoods and strengthened food security for climate vulnerable poor in target area													
3	Target households with stable and climate resilient sources of income													
	HHS with climate resilient income	%	91.8	91.7	92.4	96.9	90.4	93.6	87.1	88.9	91.9	90.9	93.3	90.7
		p value		0.398		0.552		0.009*		0.892		0.016*		
	Climate Resilient annual income of HHS (NOMINAL)	NRs	170206	172497	156791	171526	169832	162362	190323	158934	170495	154038	185090	230508
		P value		0.398		0.552		0.009*		0.892		0.016*		
	Climate Resilient annual income of HHS (REAL)	NRs	145476	147433	134010	146604	145156	138771	162669	135841	145723	131656	158197	197015
		p value		0.398		0.552		0.009*		0.892		0.016*		
4	Women engaged in new income generating ventures													
	HH engaged	%	11.8	12.7	6.7	5.7	13.5	11.4	12.9	5.6	12	10.5	13.4	14
	Women engaged	%	9.9	10.7	4.8	5	11.2	9.5	10.9	0	10.1	8.6	11.9	9.3
	Women Leadership	%	5.0	5.4	2.9	2.5	5.7	5.4	4	0	5.1	3.9	5.9	9.3

SN	Indicators	Unit	Overall	Household Head		Ethnicity/ Caste		Climate vulnerability		Disability		Respondents		
				Male (n =615)	Female (n =105)	Dalit (n =159)	BCTS (n =561)	High (n =518)	Low (n =202)	With (n =18)	Without (n =702)	Youth (n =408)	Adult (n =269)	Elderly (n =43)
5	Target Households report better and greater access to natural resources	%	56.9	58.8	46	55	57.5	56.9	57.2	51.4	57.1	57.6	55.9	57
		p value		0.000*		0.372		0.898		0.435		0.790		
	Women Report better access natural resources	%	59	61.2	46	60.1	58.6	59.1	58.7	55.6	59	58.9	58.9	60.7
		p value		0.000*		0.595		0.868		0.622		0.962		
6	Proportion of households with improved access to water for agriculture	%	87.8	87.5	89.5	89.9	87.2	86.9	90.1	83.3	87.9	87.7	87.4	90.7
		p value		0.555		0.346		0.235		0.560		0.825		
7	Proportion of Households with Improved Access to Water for Drinking Purpose	%	99.2	99.2	99	100	98.9	99.4	98.5	100	99.1	98.8	99.6	100
		p value		0.885		0.19		0.23		0.694		0.404		
8	Percent households engaged in/benefitted from Multi-Use Water Systems (MUS) technology	%	54.9	55.4	51.4	59.7	53.5	58.1	46.5	55.6	54.8	57.4	52	48.8
		p value		0.444		0.161		0.005*		0.952		0.284		
	Percent of households have access to forest products and improved soil quality													
9	Percent of households have access to forest products and improved soil quality	%	97.2	96.9	99	98.1	97	97.1	97.5	100	97.2	97.1	97.4	97.7
		p value		0.218		0.439		0.758		0.468		0.95		
10	Status of forest resources	%	50.1	50.9	45.7	56	48.5	45.8	61.4	50	50.1	47.3	52	65.1
		p value		0.592		0.012		0.000*		0.708		0.188		
	Outcome Indicators													
	Proportion of HHs implementing measures to adapt to climate change predicted impacts													
	Practicing	%	41	41.3	39	36.5	42.2	42.9	36.1	22.2	41.5	40.2	42	41.9
		P-value		0.664		0.192		0.1		0.101		0.889		
	Women respondent practicing	%	32.4	31.5	37.1	29.6	33.2	35.1	25.2	22.2	32.6	32.9	32.5	19
		P-value		0.257		0.392		0.011*		0.352		0.414		

SN	Indicators	Unit	Overall	Household Head		Ethnicity/ Caste		Climate vulnerability		Disability		Respondents		
				Male (n =615)	Female (n =105)	Dalit (n =159)	BCTS (n =561)	High (n =518)	Low (n =202)	With (n =18)	Without (n =702)	Youth (n =408)	Adult (n =269)	Elderly (n =43)
11	Targeted institutions and community groups have increased capacity to reduce climate change risks in development practice	%	1.9	1.9	1.8	2.1	1.8	2.1	1.3	2	1.9	2	1.9	1.1
		p value		0.491		0.111		0.000*		0.856		0.041*		
12	Household income	NRs/HH	216786	222006	186209	196985	222398	205459	245831	220718	216685	201634	229720	279635
		p value		0.115		0.189		0.024*		0.937		0.035		
		p value		0.968		0.174		0.000*		0.506		0.313		
13	Percentage decrease in negative coping strategies													
A	None	%	58.6	59.2	55.2	58.5	58.6	53.1	72.8	77.8	58.1	58.1	59.5	58.1
B	Stress	%	26.7	26.7	26.7	28.3	26.2	28.8	21.3	11.1	27.1	27.7	24.5	30.2
C	Crisis	%	2.1	2.0	2.9	3.1	1.8	2.5	1.0	0.0	2.1	2.2	2.2	0.0
D	Emergency	%	12.6	12.2	15.2	10.1	13.4	15.6	5.0	11.1	12.7	12.0	13.8	11.6
14	Municipal plans are prepared through community participation													
	HH aware	%	30.4	31.7	22.9	28.3	31	31.5	27.7	16.7	30.8	30.1	30.9	30.2
		p value		0.068		0.511		0.327		0.199		0.981		
	HH participating	%	21.8	22.9	15.2	17	23.2	22.2	20.8	11.1	22.1	21.3	22.7	20.9
		p value		0.563		0.052		0.524		0.846		0.892		
15	All scheduled castes and communities participate in workshops	%	9.3	9.4	8.6	8.8	9.4	8.7	10.9	5.6	9.4	9.1	10	7
		p value		0.779		0.806		0.36		0.579		0.789		
16	Farmer households trained/equipped (approx. 720 HHs)													
	Capacity Building	%	7.1	7.6	3.8	5.7	7.5	5.8	10.4	5.6	7.1	6.1	8.9	4.7
		p value		0.157		0.428		0.030*		0.798		0.311		
	Infrastructure Support	%	59.2	58.9	61	54.1	60.6	57.7	62.9	50	59.4	58.6	60.2	58.1
		p value		0.687		0.14		0.207		0.423		0.904		

SN	Indicators	Unit	Overall	Household Head		Ethnicity/ Caste		Climate vulnerability		Disability		Respondents		
				Male (n =615)	Female (n =105)	Dalit (n =159)	BCTS (n =561)	High (n =518)	Low (n =202)	With (n =18)	Without (n =702)	Youth (n =408)	Adult (n =269)	Elderly (n =43)
	Livelihood Support	%	77.8	78.2	75.2	88.1	74.9	86.9	54.5	72.2	77.9	77.2	78.8	76.7
		p value		0.498		0.000*		0.000*		0.566		0.874		
	Total	%	92.2	91.4	97.1	99.4	90.2	95.4	84.2	94.4	92.2	92.4	92.6	88.4
		p value		0.042*		0.000*		0.000*		0.721		0.622		
17	HHs with Improved agricultural and livestock management practices													
	Receiving Training	%	9.2	9.4	7.6	8.8	9.3	9.8	7.4	5.6	9.3	9.3	9.7	4.7
		p value		0.552		0.858		0.312		0.591		0.564		
		%	7.2	7.6	4.8	8.2	7.0	8.1	5.0	5.6	7.3	7.8	6.7	4.7
C	Adopting learned skills	P value		0.229		0.147		0.191		0.601		0.269		
18	Income from forest based NTFP increased by in target VDCs (30 against baseline)													
		%	2.6	2.6	2.9	0.6	3.2	2.9	2	0	2.7	2.2	3	4.7
	HH generating	p value		0.752		0.746		0.504		-		0.635		
		NRs	1114	1192	657	38	1419	1485	163	0	1142	517	2123	465
	Average income from NTFPs (NRs)	P value		0.752		0.746		0.504		-		0.635		
	Targeting Women, poor and	%	43.6	43.1	46.7	49.7	41.9	47.1	34.7	38.9	43.7	42.9	44.6	44.2
19	marginalized	p value		0.058		0.285		0.0218*		0.713		0.881		
20	Physical Capital (Community Infrastructures)													
		%	86.3	85.7	89.5	88.7	85.6	89.6	77.7	72.2	86.6	87.5	84.4	86
	Supported construction	p value		0.292		0.314		0.000*		0.08		0.515		
		%	71.8	71.9	71.4	69.8	72.4	74.5	64.9	61.1	72.1	72.1	72.5	65.1
	Benefitted construction	p value		0.544		0.206		0.844		0.982		0.472		
		%	77.8	76.7	83.8	76.7	78.1	82.2	66.3	61.1	78.2	77.9	77	81.4
	Participated construction (4)	p value		0.459		0.191		0.043*		0.772		0.715		

SN	Indicators	Unit	Overall	Household Head		Ethnicity/ Caste		Climate vulnerability		Disability		Respondents		
				Male (n =615)	Female (n =105)	Dalit (n =159)	BCTS (n =561)	High (n =518)	Low (n =202)	With (n =18)	Without (n =702)	Youth (n =408)	Adult (n =269)	Elderly (n =43)
	Average employment days	Days	24	24	24	28	22	27	15	14	24	23	25	20
		p value		0.591		0.021*		0.000*		0.468		0.322		
	Average income (HHs)	RS	14605	14848	13180	16650	14025	15914	11248	10800	14702	14273	14664	17380
		p value		0.033*		0.330		0.067		0.4911		0.492		
21	Food Consumption Score													
	% Of HH with Poor	%	1.3	1.1	1.9	4.4	0.4	1.7	0	0	1.3	1.2	1.1	2.3
	% Of HH with Border Line	%	16.8	15.8	22.9	22	15.3	19.9	8.9	11.1	17	18.1	16	9.3
	% Of HH with Acceptable	%	81.9	83.1	75.2	73.6	84.3	78.4	91.1	88.9	81.8	80.6	82.9	88.4
		p value		0.151		0.000*		0.000*		0.706		0.601		
22	Economic Capacity to Meet Essential Needs (ECMEN) Average Expense	NRs	49012	47815	56027	42992	50718	48249	50969	53552	48896	50918	46979	43650
		p value		0.008*		0.003*		0.261		0.504		0.105		
23	Rate of small holder post-harvest loses (Zero food initiative) - CAFS Post-harvest loss to the total production (Cereals)	%	1.2	1.2	1.2	1.1	1.3	1.1	1.5	1.1	1.2	1.2	1.3	1.2
		p value		0.925		0.111		0.002*		0.818		0.731		
24	Gender role in household decision making													
A	Use of cash vouchers	%	68.3	70.6	55.2	69.8	67.9	60.8	87.6	72.2	68.2	70.8	65.8	60.5
		p-value		0.000*		0.237*		0.000*		0.845		0.519		

Annex XVIII: Annual project budget and expenditure

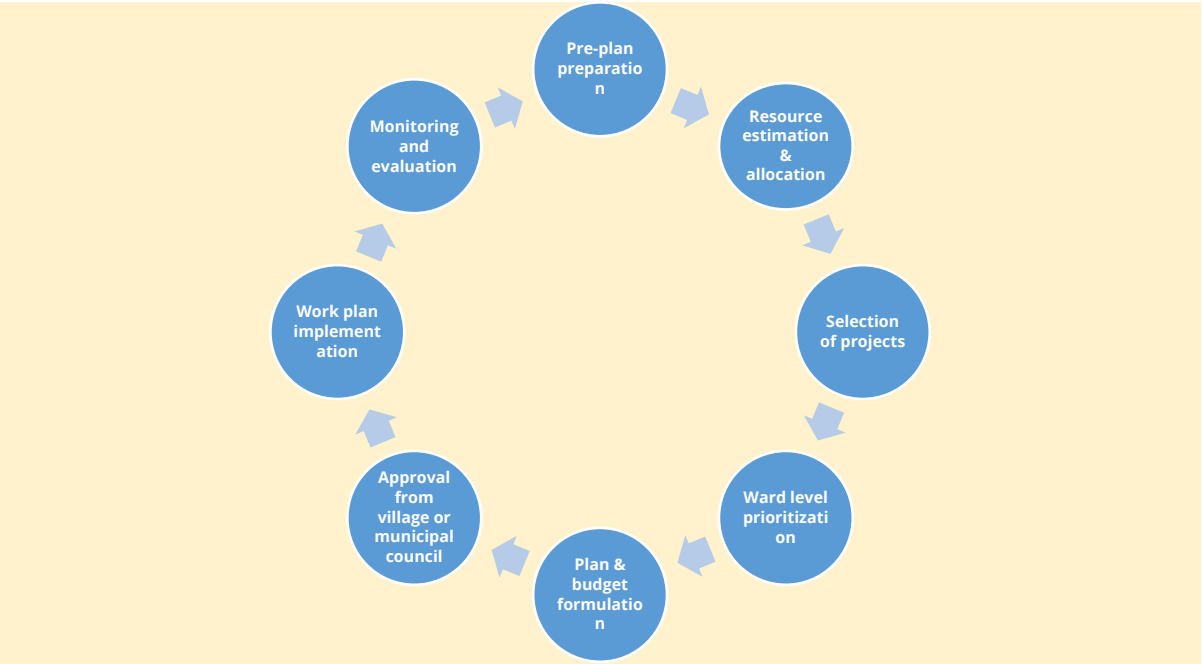
	2019		2020		2021		2022		Cumulative		
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Percent
Output 1.1.1 Train and mobilize officers and community representatives at village and district to design, implement and monitor local adaptation strategies		76,454	60,999	23,144.66	96,000	186,867.76	118,859.00	323,532	609,999.00	609,998	100.0
Output 1.1.2 Local and food security and climate adaptation planning supported		21,622	44,300	9,257.86	48,000	24,331.85	33,615.00	117,602	172,814.00	172,814	100.0
Output 1.1.3 Gender and social inclusion are well integrated into the adaptation planning processes		-	29,532	1,542.98	10,240	7,538.00	5,943.00	21,598	30,680.00	30,679	100.0
Output 1.2.1 Local adaptation plans integrated into sector-wise, locals and district planning process		-	6,902	1,542.98	16,000	10,886.41	13,372.00	56,599	69,029.00	69,029	100.0
Output 1.2.2 Integrate climate resilience to planning processes and development projects of key national ministries		-	382,591	23,144.66	224,000	28,205.56	74,659.00	331,240	382,591.00	382,590	100.0
Output 1.2.3 Conduct periodic assessment and document project lessons for dissemination at community, district and national levels		-	84,327	3,085.95	32,000	14,517.45	16,529.00	66,723	84,327.00	84,327	100.0
Output 2.1.1 Provide increased income opportunity for poor households, especially during agricultural lean-season,		580,688	116,143	607,161.59	1,126,400	1,161,699.69	663,988.00	837,571	3,187,121.0	3,187,120	100.0

	2019		2020		2021		2022		Cumulative		
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Percent
through building physical and natural livelihood related assets											
Output 2.1.2 Increased local availability and access to food and nutrition through better storage and value-addition in all target VDCs		132,719	112,735	217,714.10	355,520	288,870.22	249,095.00	419,439	1,058,743.0	1,058,742	100.0
Output 2.1.3 Improved and adapted current crops and livestock management practices to increased climate risks		93,297	265,793	120,815.12	249,920	188,931.78	187,808.00	341,323	744,367.00	744,367	100.0
Output 2.1.4 Increased income through livelihood diversification using local resources		129,374	103,150	167,104.45	346,560	280,725.58	201,132.00	454,302	1,031,507.0	1,031,506	100.0
Output 2.1.5 Renewable energy-based systems introduced to support women-led enterprises		160,433	449,567	226,663.37	429,760	411,982.40	292,178.42	480,767	1,279,847.0	1,279,846	100.0
Project Execution Cost		40,351	734,194	55,579.80	41,600	-	74,287.00	16,202	129,765.0	112,133	86.4
Project Cycle Management Fee				104,736.16	224,000	-		641,567	746,367.0	746,303	100.0
TOTAL	**-**	**1,234,938**	**2,390,233**	**1,561,493.69**	**3,200,000**	**2,604,556.7**	**1,931,465.4**	**4,108,465**	**9,527,157.**	**9,450,321**	**99.2**

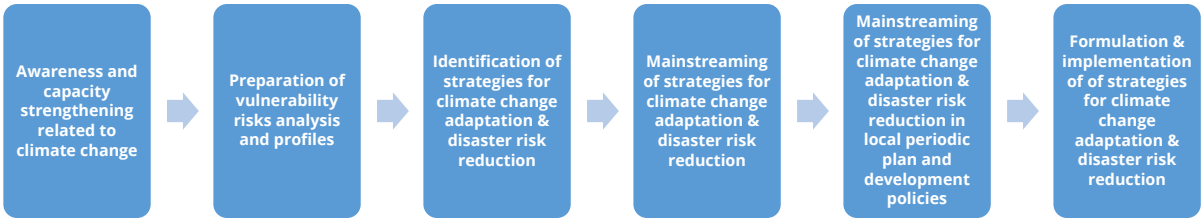
Annex XIX: Gender Considerations in Project Design

Design	Narrative	Gender Responsive Indicator
Objective	1. Strengthen local capacity to identify climate risks and design adaptive strategies	Percentage of women within target population aware of predicted impacts
	2. Diversify livelihood and strengthened food security for climate vulnerable poor households in target areas	Number of women engaged in new income generating ventures
	3. Increase resilience of natural systems that support livelihoods and reduces climate change induced stresses.	None
Outcomes	1.1 Climate vulnerable and food insecure poor actively participate in developing local climate risk reduction strategies and actions	None
	1.2 Strengthened ownership and management of climate risk reduction activities and replication of lessons in key livelihood sectors	None
	2.1 Diversified and strengthened livelihoods, livelihood assets and improved access to food for climate vulnerable households.	

Annex XX: Steps in Mainstreaming Strategies for Climate Change Adaptation and Disaster Reduction and Management in Local Annual Budget



LAPA Framework Overall Process



Source: MoFE. (2019). Local Adaptation Plan of Action Framework 2019 (LAPA), Ministry of Forest and Environment, Kathmandu, Nepal

SN	Rural municipality	Key provisions related to climate adaptation on annual plan of 2021/22
1	Palata, Kalikot	Collaborate with different agencies for reducing disaster risk reduction and building climatic resiliency.
2	Patal Jharna, Kalikot	Discussed drought as a problem, no specific programmes
3	Hima, Jumla	• No specific programmes

4	Tila, Jumla	• Mainstreamed climate adaptation in annual plan and programme
		• Climate adaptation as one of the priority programme with high priority on research and documentation,
		  • Protect human and agricultural land from climate induced risk,
		  • Promote agriculture and livestock insurance ;
		  • climate resilient plantation and disaster risk reduction

5	Tatopani, Jumla	• Implement farmer field schools for promoting climate resilience programme. • Establish early warning system for disaster risk
6	Soru, Mugu	• No specific programme
7	Khatyad, Mugu	• No specific programme

Annex XXI: Findings, Conclusions, Recommendations and Mapping

Recommendations	Conclusions	Corresponding findings
Carry out follow-up actions to sustain the good results and initiatives of the CAFS-Karnali	247-248	256
Design 2nd Phase CAFS-Karnali focused on ensure sustainability of the activities carried out during the first phase and including other LGs that make a part of the same sub-water shed or water shed	248	256
Include transparent mechanisms to operate the result-based reporting mechanism in the project design and implementation modality of the project	247	257

Annex XXII: Bibliography

AF (nd). Guidelines for adaptation fund project/programme final evaluations. Adaptation fund

AF. (2018). Medium- Term Strategy 2018-2022. Adaptation Fund (AF).

Basnyat, B. (2020). Commodifying the community forestry: a case from scientific forestry practices in Western Hills of Nepal. *Journal of Forest Research*, *25*(2), 69-75.

Bista, R., Parajuli, R., Giri, K., Karki, R., & Song, C. (2022). Impacts of COVID-19 pandemic on the livelihoods of rural households in the community forestry landscape in the Middle Hills of Nepal. Trees, Forests and People, 9, 100312.

CBS (2017), Nepal Labor Force Survey 2017, Central Bureau of Statistics (CBS), Nepal

CBS (2022). Provincial Gross Value-Added Products, 2021/22. Central Bureau of Statistics (CBS), GoN, Nepal

CBS. (2022). Climate Related Indicators of Nepal. Central Bureau of Statistics (CBS), Nepal

CBS. (2021). National Population Census, 2021, Preliminary Results. Central Bureau of Statistics, Nepal

Chadburn, O., Anderson, C., Cabot Venton, C., & Selby, S. (2013). Applying cost benefit analysis at a community level: a review of its use for community-based climate and disaster risk management

Eckstein. D., Künzel. V., & Schäfer. L. (2021). Global Climate Risk Index 2021. German Watch, Germany

FAO (2015) The Economic Lives of Smallholder Farmers, Food and Agriculture Organization of the United Nations, Rome.

GHI (2022). Global Hunger Index: Food Systems Transformation and Local governance. Global Hunger Index

GoN & UNDP. (2020). Nepal Human Development Report, 2020 Beyond Graduation: Productive Transformation and Prosperity. Government of Nepal (GoN) and United Nations Development Programme (UNDP)

MoAD. (2015). Agriculture Development Strategy (ADS) 2015-2035, Part: 2, Ministry of Agricultural Development, Kathmandu.

MoALD (2019). Integrating Climate Change Adaptation into Agriculture Sector Planning of Nepal: A Handbook. Ministry of Agriculture and Livestock Development, UNDP and FAO

MoF. (2022) Economic Survey (2021-022). Ministry of Finance (MoF), GoN, Nepal.

MoFE (2019), LAPA Framework 2019. Ministry of Forests and Environment, Kathmandu, Nepal

MoFE. (2021). Assessment of Climate Financing Allocation: Unpacking Eighty Per Cent Allocation to the Local Level. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal

MoFE. (2021). Nepal's third national communication to the United Nations framework convention on climate change (UNFCCC). Ministry of Forests and Environment, Government of Nepal.

MoFE. (2021). Vulnerability and Risk Assessment and Identifying Adaptation Options: Summary for Policy Makers. Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal.

MoHP. (2023) COVID-10 Dashboard). Ministry of Health and Population (MoHP), GoN, Nepal. https://covid19.mohp.gov.np/

NEWERA. (2020). Baseline Survey Report of Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal Project (CCAFS, Karnali), NEWERA

NPC (2018). National Monitoring and Evaluation Manual, National Planning Commission, Kathmandu, Nepal.

NPC. (2020). Nepal's Sustainable Development Goals Progress Assessment Report 2016–2019, NPC, July 2020.

NPC. (2020). The Fifteenth Plan (Fiscal Year 2019/20 – 2023/24). National Planning Commission (NPC), GoN

NPC. (2021) Nepal Multidimensional Poverty Index 2021: Analysis Towards Action. National Planning Commission (NPC), GoN

NSO (2022), National Population and Housing Census 2021 (Volume 1) , National Statistical Office, Office of the Prime Minister and Council of Ministers, Nepal.

PEA. 2021. The United Nations Environment A Cost Benefit Analysis of Climate Adaptation Options Supported by the ADAPT PLAN Project. The Poverty-Environment Action for the Sustainable Development Goals (PEA), The United Nations Development Programme and The United Nations Environment July 2021

Röhrig, F., Schiek, B., Ghosh, A., Ramirez-Villegas, J., Achicanoy, H., Esquivel, A., Saavedra, C., Grosjean, G. (2021). WFP Critical Corporate Initiative: Climate Response Analysis Nepal. The Alliance of Diversity and The International Centre for Tropical Agriculture; World Food Programme

Sachs, J., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2022). Sustainable development report 2022. Cambridge University Press.https://dashboards.sdgindex.org/profiles/Nepal

UNDP. (2022). Human Development Report, 2021/22, Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. United Nations Development Programme.

UNFCCC. (2011). Assessing the costs and benefits of adaptation options: an overview of approaches. *The Nairobi work Programme on impacts, vulnerability and adaptation to climate change*, 52.

WFP (2022), Good Practices and Learning of the Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal Project (CCAFS, Karnali). World Food Programme

WFP (2023). Annual Project Performance Report, 2022. World Food Programme, Nepal

WFP. (2013). Project Proposal Submitted to Adaptation Fund Board. World Food Programme.

WFP. (2018), Standard Operating Procedure (SoP) for the Implementation of project, May 2018. World Food Programme.

WFP. (2020). Programme Indicator Compendium revised corporate results framework (2017-2021), World food programme.

WFP. (2022). Gender Impact Assessment Report: Adapting to climate-induced threats to food production and food security in the Karnali region of Nepal (CAFS- Karnali) Project. World Food Programme (WFP), Kathmandu Nepal

WFP. (2023). Project Performance Report 2023 (final). Adapting to Climate Induced Threats to Food Production and Food Security in the Karnali Region of Nepal. World Food Programme (WFP), Kathmandu Nepal

WFP. (2023). WFP Hunger Map, 2021. Accessed: April. 10, 2023. [Online]. Available: https://hungermap.wfp.org/

WFP. (2004). Thematic Analysis: Sampling Guidelines for Vulnerability Analysis. World Food Programme. Rome

World Bank. (2022). Climate Development Report, 2022. The World Bank Group, Washington DC.

World Bank. (2022). Nepal Development Update October 2022 (English). Nepal Development Update. World Bank, USA

Yin, R. K. (2011). *Applications of case study research*. Sage publication