



FAO-UNDP joint evaluation of the project “Integrating Agriculture into National Adaptation Plans (NAP-Ag)”



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**Evaluation of the project
“Integrating Agriculture into National
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Abstract

The report presents the findings, conclusions and recommendations of the final evaluation of the Integrating Agriculture into National Adaptation Plans Programme (NAP-Ag), funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and jointly implemented by the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP). NAP-Ag was implemented from 2015 to 2020 in Kenya, Uganda, Zambia, the Gambia, Nepal, Philippines, Thailand, Viet Nam, Guatemala, Colombia and Uruguay. The evaluation assessed the i) relevance of the programme; ii) the achievement and sustainability of programme results; iii) the progress to impact; iv) the programme's efficiency; and v) identified lessons learned and provided recommendations for the implementation of future initiatives to develop or scale the results of the programme.

The approach was qualitative and included a questionnaire, extensive documentation review and interviews with key-stakeholders in all countries. Outcome Harvesting principles were used to guide an in-depth view on six countries (Colombia, Nepal, Viet Nam, Philippines, Kenya and Uganda), identifying significant and observable outcomes (changes in policies, plans and practices) influenced by the programme and taking actors, context and other factors as contributors to the outcomes achieved. This evaluation was entirely conducted remotely during the COVID-19 pandemic.

The evaluation has found that NAP-Ag directly contributed to the implementation of FAO's 2017 Climate Change Strategy and to UNDP's 2018–2021 Strategic Plan. In most of the NAP-Ag countries, it is possible to identify changes in policies, plans and budgeting at national and subnational level. The programme enhanced knowledge to integrate adaptation concerns in planning, budgeting and monitoring frameworks of the target countries and was able to consolidate a knowledge-base on NAP-Ag. NAP-Ag has contributed to global climate change adaptation efforts and ultimately supported countries to accomplish the work outlined by the United Nations Framework Convention on Climate Change (UNFCCC) and informed the Koronivia Joint Work in Agriculture (KJWA) on the importance of adaptation and NAPs. The programme helped strengthening the foundations upon which the capacities and agency in climate change adaptation options are harnessed for their effective identification, analysis, formulation, implementation and result impacts. Improvement of institutional environment was achieved by establishing inter-sectoral coordination and facilitating policy and planning transformation. NAP-Ag consolidated a knowledge-base on NAPs in the NAP-Ag Knowledge tank, that has now been integrated in the FAO Climate Change Knowledge Hub. NAP-Ag was able to influence the inclusion of gender aspects adaptation options in many countries. Gender mainstreaming achieved different levels of results according to countries' interest and willingness or related with political or cultural reluctance. The approach adopted built ownership and sustainability by strengthening capacity of multi-sector stakeholders to develop and submit proposals for additional funds to scale up or build upon its outcomes.

The evaluation recommends to continue promoting adoption of programme outcomes in countries' systems; mobilize more financial support to scaling up lessons learned from NAP-Ag and further support pilot adaptation options identified by the programme; increase the involvement of the private sector; consider the necessary aspects for the implementation of NAP roadmaps in the design of adaptation planning instruments; continue to promote gender and youth specific and inclusive adaptation options and engage strategic stakeholders to support gender mainstreaming efforts to push for inclusion of aspects that guarantee access to rights and opportunities.

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The evaluation team deeply appreciate the support provided by the Integrating Agriculture into National Adaptation Plans Programme (NAP-Ag) global team, FAO and United Nations Development Programme (UNDP) regional office staff and country office teams, and all the government staff and partners of the programme in the 11 countries and at the global level, who contributed to this evaluation with their time, knowledge, insights and provided additional documentation. In particular, we thank Julia Wolf and Alessandro Spairani (FAO), and Rohini Kohli and Julie Teng (UNDP) for organizing and giving us access to all documents, providing quick responses and facilitating the access to stakeholders and resources as needed.

The Evaluation Team is composed of Dr Arun Rijal, team leader and climate change specialist, Ms Susan Mugwe, senior team member and gender and M&E specialist, Ms Marco Ruiz Serkovic, team member, and climate change and fisheries specialist, and the Evaluation Manager is Emilia Bretan, FAO OED.

Abbreviations and acronyms

AFMP	Agriculture and Fisheries Modernization Plan (Philippines)
CBA	Cost benefit analysis
CCA	Climate change adaptation
CSA	Climate-smart agriculture
GCF	Green Climate Fund
GEF	Global Environmental Facility
KCSAIF	Kenya Climate Smart Agriculture Implementation Framework
KJWA	Koronivia Joint Work on Agriculture
LDC	Least developed country
LEG	Least Developed Countries Expert Group, UNFCCC
NAP	National Adaptation Plan
NCCAP	National Climate Change Action Plan (Philippines)
NDC	Nationally determined contribution
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

1. The Food and Agriculture Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP), with financial support from the International Climate Initiatives (IKI) of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, launched the programme *Integrating Agriculture into National Adaptation Plans Programme* (UNFA/GLO/616/UND) (hereinafter, NAP-Ag). NAP-Ag was initiated in 2015 and completed in 31 December 2020. The objective is “to integrate climate change concerns as they affect agriculture sector-based livelihoods into associated national and sectoral planning and budgeting processes”.
2. The total budget of the programme was USD 17 910 034.61 (EUR 15 million). The project was first implemented in three least developed countries (LDCs) and five developing countries, namely Uruguay in Latin America; Kenya, Uganda and Zambia in Sub-Saharan Africa; and Nepal, the Philippines, Thailand and Viet Nam in Asia. In mid-2015, request for additional funds to enhance activities under the programme was submitted to the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety and the agreement was amended in December 2015 to include an additional EUR 5 million. This brought the initial total resources of EUR 10 million to EUR 15 million. Three additional countries - Colombia, Gambia and Guatemala - joined the project, and additional activities, especially focused on gender, were included. Activities in these three new countries started in 2017.
3. This final evaluation was conducted during 2020 and mainly focused on assessing the relevance, results and sustainability of the programme, adopting a qualitative approach. It covered the whole programme implementation, all countries and the global work. It included an in-depth view on six countries (Colombia, Nepal, Viet Nam, the Philippines, Kenya and Uganda). This evaluation was entirely conducted during the COVID-19 pandemic, which imposed limitations to the data-collection, in particular.

Relevance

4. NAP-Ag is highly relevant to the targeted countries. Its design was strongly based on partnership; it was flexible to accommodate countries’ priorities, strengths, and weaknesses and built on countries’ capacities and existing institutions, structures, plans and policies. The global design promoted knowledge sharing, participation in several international fora, uniform methods for trainings, reduction of costs, risk management, and benefits from the pool of national and international experts and resources. This increases efficiency and effectiveness.
5. NAP-Ag was in line with the countries’ national programmes, policy frameworks, and existing capacities and needs. FAO and UNDP shared responsibilities and built on each other’s specific expertise, comparative advantage, strong networks and long experience in the countries. NAP-Ag also directly contributed to the implementation of the current FAO Strategy on Climate Change (2017) and UNDP’s Strategic Plan (2018–2021).
6. NAP-Ag also responded to specific concerns of global partners such as the United Nations Framework Convention on Climate Change (UNFCCC). The programme helped the countries to improve reporting to UNFCCC on progress of NAP formulation and implementation and to accomplish the work outlined by the Least Developed Countries Expert Group (LEG), the Adaptation Committee of UNFCCC, to the NAP technical working groups and Sustainable Development Goal

(SDG) 13 on climate action. It informed the Koronivia Joint Work on Agriculture (KJWA) on the importance of adaptation and NAPs.

7. Targeting of countries was adequate: LDCs and developing countries are highly dependent on agriculture. They are the most impacted by climate change due to their vulnerability to climate variability, and are less prepared to face its consequences, requiring support to formulate evidence-based policies and plans.
8. The programme's theory of change was appropriate to reach the proposed goal and objectives and the results framework was flexible to address country's selected programs as per their needs. Some indicators were ambitious considering the programme time frame and budget.

Effectiveness

9. The NAPs endeavoured to be holistic and include interconnected enablers that have the potential to reverse gains made in agricultural climate concerns if not addressed. To achieve this, NAP-Ag involved and convened multiple stakeholders, which resulted in effective consolidation of inputs from the interdependent sectors and identification of policy entry points to integrate agriculture in the NAPs and in the sectoral planning and budgeting processes. The programme was catalyst towards enabling target countries to advance in their respective NAP processes by supporting them to develop supplementary documents and tools, since not all countries were at the same stage of development.
10. The programme's results contribute directly to the SDG 13 (Climate Action) goal and specific targets, and to the implementation of the Paris Agreement; as well as to the implementation of the FAO Strategy on Climate Change (2017) and the UNDP's Strategic Plan (2018-2021). It contributes indirectly to other SDGs, in particular SDG 5 (Gender Equality) and SDG 2 (Zero Hunger).
11. **Outcome 1.** NAP-Ag strengthened countries' capacity on several topics needed to advance NAP process and to scale-up adaptation through tailored trainings and sensitization workshops. These included gender mainstreaming, monitoring and evaluation (M&E), cost benefit analysis (CBA), vulnerability assessment and evidence-based planning and budgeting. It also contributed to improved institutional environment by establishing inter-sectoral coordination/cooperation and facilitating important policy and planning transformation. The programme facilitated South-South cooperation which helped to exchange knowledge, and catalysed the sharing of lessons at regional, national and international platforms.
12. **Outcome 2.** The programme was able to pave the way to integrate climate change adaptation (CCA) into development policies and strategies through training and knowledge sharing interventions that were foundational for strengthening individual and institutional capacities on adaptation planning in the agriculture sector. As a result, target countries were able to integrate adaptation planning into their national policies and processes.
13. **Outcome 3.** Evidence base on adaptation options was improved by developing stocktaking exercises, several studies and assessments, development of guiding tools and many other activities. Acquiring and transferring knowledge and experiences to other related initiatives was facilitated. The evidence generated was shared in the format of lessons learned from different activities and captured in knowledge products. The evidence generated was also basis for the development of the Strategic Plans for Climate Change and/or, NAP-Ag roadmaps and action plans.
14. **Outcome 4.** NAP-Ag supported the consolidation of a knowledge base on national adaptation planning by convening a series of advocacy and knowledge sharing events, capacity enhancement

activities, development of guidelines and a monitoring mechanism with standard indicators and information from the case studies, implementation, monitoring and evaluation of climate actions in the agriculture sector. An online knowledge tank consolidated several knowledge products that are now available for ample and free access and use, currently integrated in the FAO Climate Change Knowledge Hub, launched in late 2020.

Gender

15. The programme design explicitly recognized the pivotal role women play in inadvertently enabling acceleration of climate change if alienated or slowing down its impact if involved. The design delineated areas for inclusion of women, among which the collection of gender-disaggregated data, emphasis/focus on gender in trainings, gender-focused case studies and gender-specific indicators.
16. The programme ensured, monitored and reported on women's participation in trainings, developed knowledge products, provided capacity building in gender mainstreaming in adaptation, and was able to influence the inclusion of gender aspects adaptation options in many countries. However, the adaptation options adopted do not expressly address inequities in rights or differential power relations. The uptake of gender mainstreaming varied among countries and was constrained by the varied degree of interest and uptake from country representatives.

Efficiency and coordination

17. NAP-Ag was a collaborative initiative between FAO and UNDP. The management arrangement and governance structure of the programme worked well. Implementation was overall effective, and management was able to navigate and adapt to challenges. The programme management worked in close coordination with the government counterparts and support was provided for countries by regional and global teams. Multi-stakeholder steering committees helped to address issues faced by the programme at country level.
18. The programme effectively leveraged strategic partnership typologies with multi-sector stakeholders in the countries that provided valuable contributions from partners. Government was also involved directly in implementation. This strategy increased relevance of the intervention, ownership and sustainability of results of NAP-Ag.
19. The programme's M&E framework established regular monitoring at the programme, regional and country levels to provide immediate feedback to improve programme implementation. M&E and support provided was effective and relevant for decision-making and learning. Some mid-term review (MTR) recommendations helped to address issues and improve implementation, but some were not relevant, partially relevant or not implemented due limitation of time and/or fund.

Sustainability

20. NAP-Ag built sustainability by laying the foundations for continuation of the work through i) capacities, knowledge and skills transferred to the national stakeholders; ii) institutional strengthening and coordination; iii) assimilation of programme outputs into national overarching initiatives and integration of the NAPs into statutory processes; iv) the following programme initiatives; and v) different resource mobilization achievements.
21. Programme sustainability could be threatened by staff turnover in government and other relevant institutions, lack of financial and technical support to implement the NAP roadmap, lack of funding for piloting M&E indicators and updating data, and diseases like COVID-19.

Progress towards impact

22. The programme created momentum towards impact by strengthening the foundations upon which the capacities and agency in CCA options are connected for their effective identification, analysis, formulation and implementation. While the likelihood of contributing to future impact can be inferred from results achieved, it is too soon to measure impact.
23. The agriculture sector adaptation plans developed by the programme included measures to reduce the agro-ecological stress; thus it is expected that, when recommended actions or suitable adaptation options are implemented, irrigation, food production and other activities would become more resilient, ultimately leading to positive improvements to reduce the stress on the agro-ecological system.
24. NAP-Ag developed a protocol to estimate losses and damage due to extreme weather events. While this protocol does not prevent impacts in itself, it allows for better estimates that can strengthen public policy design, help design risk transfer tools and disaster preventive development plans.

Conclusions

25. The NAP-Ag programme was highly relevant to the targeted countries. Due to vulnerability and food security importance, the need of including this sector in the NAP process was recognized at the UNFCCC. The programme was also timely, since the NAP process had started or was about to start in the selected countries.
26. The global programme design was adequate to achieve its objectives and flexible enough to address countries' needs and priorities. The objectives, components and outputs in the results framework are clear and appropriate to the issues, but some of the indicators were ambitious considering the programme time frame (when delayed in some countries) and budget.
27. The country-driven, multi-sector and multi-level approach allowed for ample engagement of stakeholders, contributed to establishing coordination mechanisms and promoted ownership of results. In most of the NAP-Ag countries, it is possible to identify changes in policies, plans and budgeting at national and subnational level. The programme enhanced knowledge to integrate adaptation concerns in planning, budgeting and monitoring frameworks of the target countries and was able to consolidate a knowledge-base on NAP-Ag. Ultimately, NAP-Ag supported countries to accomplish the work outlined by UNFCCC.
28. Programme design and implementation had significant emphasis in gender mainstreaming in adaptation. As a result, NAP-Ag was able to influence the inclusion of gender aspects adaptation options in many countries, but gender mainstreaming achieved different levels of results according to countries' interest and willingness or related to political or cultural reluctance. There was youth-focused work in Uganda, but overall, the programme did not advance much in intentional partnerships with youth as stakeholders, problem solvers or agents of change in their communities, or of explicit reaching of extreme impoverished groups.
29. The management arrangement and governance structure of the programme was well planned with clear division of responsibilities between organizations. The programme created environment by strengthening the foundations upon which the capacities and agency in CCA options are harnessed for their effective identification, analysis, formulation, implementation and result impacts.
30. The approach adopted built ownership and sustainability. Strengthened capacity of multi-sector stakeholders, development and approvals of proposals for additional funds to scale up or build upon its outcomes and commitments by certain countries to carry over programme results are positive

signs. Risks for sustainability include changes of the government's priorities, decrease in public finance in agriculture sector, transfer of staff, lack/limitation of technical/financial support to implement the roadmaps, weak inter-institutional coordination, difficulties in harmonizing M&E framework in government's M&E system.

Recommendations

Recommendation 1. Future programmes should consider developed country specific result frameworks reflecting actual activities and their respective targets, thus allowing for improved tracking of achievements and contributions from each target country.

Recommendation 2. Future programmes should apply a results-based management approach where activities and programme products are treated as a means to an end; and not the achievement of the desired change. This enables reporting on transformative changes that can be directly attributed to the programme's interventions and efforts.

Recommendation 3. Development of needs assessments was not uniform across countries (e.g. it was carried out in Nepal, the Philippines and Thailand, while others used different types of stocktaking). While countries self-selected the activities to undertake, the global results framework was the same for all. Subsequent similar programmes design should include need and capacities assessment of each country so that country-specific activities and institutional capabilities will be reflected in the programme document.

Recommendations 4 and 5. Continue lobbying with the relevant government partners to adopt programme outcome in their system. Mobilize more financial support to scaling up lessons learned from NAP-Ag and further support pilot adaptation options identified by the programme.

Recommendation 6. There was little evidence of involvement of the private sector, yet some of the climate adaptation options proposed in the NAPs-Ag, for example on irrigation technologies require the input of the private sector. Hence, in future programmes, involvement of private sector in such activities should be considered.

Recommendation 7. NAP-Ag programme outcomes mainly addressed the formulation of adaptation planning instruments in countries; however, real implementation of these roadmaps and planning instruments was not considered (including public expenses, human resources, institutional arrangements, technology, among others). In future programmes, the implementation process in countries need to be identified and considered in the design of such instruments.

Recommendation 8. To strengthen gender mainstreaming in adaptation options, future programming should continue to promote gender and youth specific and inclusive adaptation options and engage strategic stakeholders to support gender mainstreaming efforts to push for inclusion of aspects that guarantee access to rights and opportunities.

Project summary table				
Project title:	Supporting developing countries to integrate the agricultural sectors into National Adaptation Plans (NAPs)			
Atlas Award ID:	00072738		at endorsement (USD)	at completion (USD)
Project ID:	00093171			
UNDP Project ID:	PIMS 5246	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety financing:	17 910 125.19	17 910 125.19
Countries:	Asia: Nepal, the Philippines, Thailand, Viet Nam Africa: Gambia, Zambia, Uganda, Kenya LatinAmerica: Uruguay, Colombia, Guatemala	in kind:	-	-
Focal area:	Climate change/agriculture	Other:	-	-
Operational programme:	Integrating CCA in NAP	Total co-financing:		
Executing agency:	UNDP (executing agency) FAO (responsible party)	Total project cost:	17 910 125.19	17 910 125.19
PAC Meeting Date:	12 January 2014	ProDoc Signature (date project began):	1 August 2015	
Management arrangement	DIM	(Operational) closing date: 31/12/2020	Proposed: 31/12/2018 then extended to 31/12/2020 as per Board recommendation	Actual: 31/12/2020
Implementing partner	National Climate Change focal points, Ministries of Agriculture, Planning and Finances; Line Ministries (water, public works, energy, environment, health, women affairs and forestry).			

1. Introduction

1.1 Purpose of the evaluation

1. Since 2007, all extra-budgetary work by the Food and Agriculture Organization of the United Nations (FAO) with a budget above USD 4 million must include a dedicated independent evaluation led by the Office of Evaluation (OED). In addition, according to the (United Nations Development Programme (UNDP) Evaluation Guidelines updated in January 2019, all projects of a budget of over USD 5 million must undertake a mid-term and terminal evaluation. Integrating Agriculture into National Adaptation Plans Programme (NAP-Ag) total budget of over USD 15 million implies that an independent dedicated final evaluation should be done.
2. The purpose of this final evaluation was two-fold: accountability, i.e., providing evidence on the utilization of the resources and the programme's achievements through the assessment of results, processes and performance of implementing partners; and learning, by extracting important conclusions and lessons from programme implementation to promote learning and knowledge sharing among the intended users as a basis for improved future decision making on policies, strategies, program management and process.
3. This evaluation has also directly informed the evaluation of FAO's contribution to Sustainable Development Goal (SDG) 13 and this report will be included as a case study in the SDG 13 evaluation report.
4. Finally, it will contribute directly on adaptive management for the new Scaling up Climate Ambition on Land Use and Agriculture through Nationally Determined Contributions and National Adaptation Plans (SCALA) programme and the formulation of other UNDP Climate Change Adaptation and Nature, Climate and Energy projects.

1.2 Scope and objectives of the evaluation

5. The evaluation covered the entire period of the NAP-Ag implementation (August 2015 to December 2020), and included the 11 countries where NAP-Ag was implemented:
 - i. Africa – Kenya, Uganda, Zambia and the Gambia
 - ii. Asia – Nepal, Philippines, Thailand, Viet Nam
 - iii. Latin America and the Caribbean – Guatemala, Colombia, Uruguay
6. This final evaluation assessed: i) the alignment of the intervention to overarching global objectives, strategic objectives of the implementing organizations and objectives of the recipient governments; ii) the programme's relevance; iii) the achievement and sustainability of programme results; iv) the degree of achievement of long-term results (progress to impact); and v) whether efforts were efficient to achieve the planned outputs and the four planned outcomes. It also identified lessons learned and provided recommendations.
7. The programme was built upon targeted countries' needs and considered their capacity and condition to implement activities. The political articulations and understandings required for elaborating policies and plans and contextual issues were also taken into consideration, as these may have contributed to or hindered NAP-Ag implementation within the countries.
8. Focus was also put in observing and identifying unexpected institutional outcomes or milestones on the planned NAP-Ag's change pathway. These institutional outcomes or milestones were

considered as significant (within context) and observable change in practices, norms, policies, plans, agendas, which were actively and voluntarily done by a country's institutions.

9. By request of the FAO-UNDP Programme Team, the evaluation also focused on the added value of the NAP-Ag design as a global programme; and the contribution of NAP-Ag to the recognition of the importance of integrating agriculture in the climate change adaptation (CCA) planning agenda and of adaptation planning in agriculture.
10. The programme did great work in documenting the achievements and reflecting on lessons, successes, shortcomings, and reflecting on ways forward and its requirements. Due to the extensive and detailed data collected throughout its implementation and the knowledge products published, this evaluation focused on summarizing and assessing the key-achievements but, most importantly, in identifying spill over and conditions for sustainability. More detailed information can be consulted in the programme's website, which includes a repository of the knowledge products,¹ and other documents which can be requested to the NAP-Ag team.
11. This Evaluation was initiated in March 2020 and completed in February 2021. Please review the Methodology and limitations sections, ahead, for more details regarding the timeline.

1.3 Intended users and audience of the evaluation

12. The main intended users of this evaluation are the i) FAO and UNDP programme team members; ii) the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, the donor; iii) the recipient countries (collaborating governments, their line ministries and decentralized entities involved in the formulation and implementation of national agricultural strategies and policies); iv) other institutions/initiatives being implemented in the NAP-Ag countries.
13. The envisioned uses of the evaluation results include accountability, learning for future funding and implementation choices of similar initiatives, such as other International Climate Initiative (IKI) funded programmes; informing completion, development and sustainability of NAP-Ag results.
14. The results of this evaluation may be useful to inform other audiences, such as international organizations and initiatives that work in climate change, including global level entities and donors that provide support, guidance and funding to develop National Adaptation Plans (NAP) and nationally determined contributions (NDCs) work² and academic organizations involved in the development of studies, trainings and pilot initiatives with government actors but also, in some cases, directly with communities, development partners, non-governmental organizations (NGOs), and civil society organizations involved in the sector.

1.4 Evaluation focus and dimensions

15. The evaluation had two main focuses. As a summative exercise, it assessed the results achieved by the programme based on the activities implemented so far. This assessment was guided by the Organisation for Economic Co-operation and Development Assistance Committee (OECD/DAC) criteria and included gender as a cross-cutting dimension. The formative aspect focused on recommendations for the design of future similar programmes related to climate

¹ FAO NAP-Ag website: <http://www.fao.org/in-action/naps/en/>

² E.g. the German Agency for International Cooperation (GIZ), Least Developed Countries Expert Group (LEG), the International Union for Conservation of Nature (IUCN), NAP Global Network

change adaptation and mitigation, and for adjustments in the climate change global and national strategies to better serve their purpose.

1.5 Main evaluation questions

16. Seven overarching questions were designed to guide the evaluation:

EQ 1. Alignment and Relevance. Was the NAP-Ag design appropriate for delivering the ultimate objective of “Climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes” and the planned outcomes?

EQ 2. Effectiveness. To what extent (and how) has the programme contributed to the integration of agriculture in national adaptation plans and sectoral planning and budgeting processes?

EQ 3. Contribution to global adaptation efforts. How and to what extent did the programme contribute to supporting CCA planning efforts at regional, national, and global (United Nations Framework Convention on Climate Change [UNFCCC]) processes levels?

EQ 4. Efficiency and Coordination. To what extent were management arrangements appropriate to deliver the programme efficiently?

EQ 5. Sustainability. To what extent are the results achieved by the programme sustainable?

EQ 6. Progress towards impact. To what extent has NAP-Ag programme contributed to the overall goal of “Climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes”?

EQ 7. Lessons learned. Which lessons can be learned from the design and implementation of the NAP-Ag programme, taking into account its specific design, which could inform similar initiatives (lessons learned are presented after the conclusions and recommendations in chapter 5)

17. These overarching questions were further specified in sub-questions, which are answered in this report.

1.6 Evaluation methodology

18. The evaluation adhered to the United Nations Evaluation Group (UNEG) *Norms and Standards* (2016), the FAO OED manual guidelines and practices and the UNDP’s Evaluation Guidelines. It adopted a consultative and transparent approach with both internal and external stakeholders. The evaluation team members ensured evaluation ethics at all stages of the evaluation cycle.

Data collection and analysis

19. **Data sources.** To respond to the above overarching questions, the evaluation relied on primary and secondary sources.

20. **Secondary sources.** Programme documents such as FAO and UNDP strategy documents, programme descriptions, mid-term review report, quarterly progress and terminal reports, back-to-office reports (BTORs), technical reports, workshop reports, studies, and other country-specific documents, NAP-Ag knowledge products, country-specific documents such as national climate change strategies, medium term plans and national development plans. The files were share in a comprehensive manner through Dropbox, accessible to the team and updated with final documents as the programme closed. The evaluation team reviewed all documents available in the Dropbox, as well as reviewing the NAP-Ag website, including the Knowledge Tank. It also reviewed documents sent directly by informants, when they were provided.

21. **Primary sources.** The evaluation team interviewed a total of 62 people, including programme task force members from FAO and UNDP at regional, country and global levels, UNFCCC personnel, close government partners involved in implementation and, for the case-study countries, other stakeholders from academia, research institutions, NGOs and other stakeholders. The complete list of informants is found in Appendix 1.

Data collection methods

22. **Inception phase.** The inception phase included interviews with UNDP and FAO programme teams for an in-depth understanding of the evaluation focus. This and the preliminary documentation review, were the basis for the inception report which detailed the team's understanding of the TORs, the approach and methods of data collection, the data collection tools, and the categories of respondents.
23. **Outcome harvesting.** Key features and principles were used to identify, analyse and learn from changes that the programme influenced, with particular focus on unintended/unplanned outcomes, in the six countries selected for an in-depth focus. The evaluation team reviewed documents and probed informants to identify observable and significant changes in practices, policies or relationships to which the programme contributed. The approach helped to identify pathways of change and trends towards sustainability and included context-based understanding of the significance of the outcomes.
24. **Country case studies.** Six countries were selected for a more detailed review: Nepal, Kenya, Uganda, the Philippines, Colombia and Viet Nam. The selection criteria for these countries included: i) implementation timelines (a sample of both those who completed on time and those who faced challenges and were delayed); ii) different pathways of change with the potential to offer a diversity of lessons that can be used in similar initiatives; iii) regional balance; and iv) inclusion (or not) in the SCALA initiative, which builds on lessons from the NAP-Ag initiative and whose inception phase started in 2020. The studies focused on the key-outcomes influenced by NAP-Ag in each country.
25. **Online qualitative questionnaire.** This was developed based on the review of programme documents and administered to relevant stakeholders from FAO, UNDP and national government focal points from each of the 11 countries. The focus areas on the questionnaire included results and influence, progress to impact, sustainability, cooperation/international fora and recommendations.
26. **Semi-structured interviews** were conducted using a blend of closed and open-ended questions, accompanied by follow-up why and how questions, that ensured a link to the overarching evaluation questions while giving the respondents the freedom to speak on salient issues.
27. **Online modality.** Following the limitation of the COVID-19 global pandemic that prohibited travelling and limited face-to-face meetings, almost all interviews were carried out remotely (online). Exceptions were a one-day data collection workshop in the Philippines in December 2019, taking advantage of the presence of stakeholders for the closing workshop, and Nepal, where some face-to-face interviews with FAO and UNDP personnel were conducted, made possible only because the team leader is based in that country.
28. **Reporting.** The preliminary findings were presented to the programme team through an online workshop and a draft report was circulated to stakeholders for their feedback.

29. **Data analysis.** The evaluation relied primarily on qualitative data, and consequently yielded text-based data. Content analysis was the main approach used. Triangulation of the evidence underpinned its validation and analysis to support the conclusions and recommendations.

1.7 Implementation rating

30. Based on the above-mentioned assessments of the categories, the evaluation team assigned one overall Programme Implementation and Adaptation Management rating from a 6-point scale from highly satisfactory (HS) to highly unsatisfactory (HU). The sustainability was analysed according to four German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety categories of sustainability (financial, socio-economic, institutional framework and governance, and environmental). The final rating of the project is satisfactory. More detail on rating is provided in Appendix 2, including the delivery status of each of the programme's indicators.

1.8 Limitations

31. This evaluation was entirely carried during the COVID-19 global pandemic, which generated specific challenges:
- i. **Travel restrictions.** Since February 2020 global travel restrictions were put in place due to the pandemic. Consequently, the evaluation team was unable to visit the implementation sites as planned, resulting in the above-mentioned methods of adaptation. The adoption of the online approach limited the evaluation of, e.g., i) the benefit of insights gained from proximity of interaction that builds trust with respondents; and ii) to record unuttered information gained from direct observation of interventions.
 - ii. **Connectivity challenges.** The whole evaluation team and most of the stakeholders interviewed (FAO and UNDP programme teams, government partners and other stakeholders) were working from home during the evaluation. In some cases, this meant poor or unstable internet connection; sometimes several attempts were necessary to complete interviews, and some had to be rescheduled. In the countries where some activities were piloted with final beneficiaries (e.g. farmers in Colombia, and fisher folks and farmers in the Philippines), it was not possible to involve these stakeholders in the evaluation because they live in remote areas where either internet access was very poor/unreliable or there was no internet.
 - iii. **Implementation pace.** Most countries had already closed activities months before the evaluation started.³ In certain cases (Kenya, the Gambia, Zambia, Uganda, Colombia and Viet Nam) the evaluation team had difficulties to reach out to stakeholders for interviews, and even to obtain responses to the online questionnaire (in certain countries, the response time was extensive, possibly also related with the pandemic). In certain countries, key-programme documents (such as terminal reports) were still being developed during the year 2020 (e.g. in the Philippines, Colombia, the Gambia).

³ Viet Nam, Uganda, Nepal, Zambia, Uruguay, Thailand and Kenya had closed activities by December 2019.

32. The evaluation adapted to these different circumstances by extending the data-collection phase, contacting previous coordinators and/or interviewing other team members, increasing focus on desk review and triangulation, and simplification of case studies processes and format.

1.9 Structure of the report

33. This report is divided into five main chapters and Appendices:
- i. Chapter 1 presents the purpose of the final evaluation, its scope and objectives, methods and approach and limitations.
 - ii. Chapter 2 presents the development context and provides background programme information, including its theory of change.
 - iii. Chapter 3 presents the answers to the main evaluation questions according to the dimensions previously described.
 - iv. Chapter 4 presents conclusions, recommendations and lessons learned.
 - v. Appendices are presented at the end of the report, including countries' case studies.

2. Background and context of the NAP-Ag programme

34. Climate change and extreme weather events, from heat waves to droughts and flooding, are more frequent than ever before. This has affected every sector of life including agriculture which is very important for the survival of all living beings. Projected increase in temperatures, variability in precipitation and weather patterns, are felt more in developing and LDCs that have a strong dependence on the agriculture sector for their economic development and livelihoods. In such countries, this condition is coupled with i) low literacy rates; ii) wide-spread poverty; iii) high dependency on natural resources; and iv) limited capacity to adapt to climate-related risks. Most vulnerable are the small holder farmers whose livelihoods depend on small scale subsistence agriculture.
35. In response to the stronger need to consider medium- to long-term planning for CCA within the framework of national development priorities, the National Adaptation Plan (NAP) process was established under the Cancun Adaptation Framework to promote political and financial support at national level for countries to mainstream climate change into development planning and budgeting. At the UNFCCC 17th Conference of the Parties (COP 17) in Durban, parties adopted initial guidelines and principles for the NAP process. In addition, relevant organizations were requested to submit information on their support of the NAP process and to consider the establishment of NAP support to programmes according to their respective mandates.
36. FAO and UNDP, with the financial support from the IKIs of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, launched the programme *Integrating Agriculture into National Adaptation Plans Programme* UNFA/GLO/616/UND (hereinafter, NAP-Ag). NAP-Ag was initiated in 2015 and completed on 31 December 2020. The total budget of the programme was USD 17 910 034.61 (EUR 15 million). Initially the budget was EUR 10 million and later an additional EUR 5 million was provided to include three countries (the Gambia, Colombia, Guatemala) and to include additional activities, especially focused on gender. The activities in these three new counties started in 2017.

2.1 NAP-Ag theory of change

37. The vision of the NAP-Ag was to arrive at a situation where countries' decision makers are able to integrate climate change concerns as they affect agricultural sector-based livelihoods into associated national and sectoral planning and budgeting processes. The theory of change (TOC) pathway designed to bring about this outcome was based on four different medium-term outcomes: i) strengthened technical capacity and institution-building on NAPs; ii) development of integrated roadmaps for NAPs; iii) improved evidence-based results for NAPs; and iv) strengthened advocacy and knowledge-sharing on NAPs.
38. The programme's objective (overall goal) is "climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes."
39. NAP-Ag aimed to advance in the integration of climate change-related risks and opportunities into associated national and sectoral planning and budgeting processes, by enabling national decision makers such as national climate change focal points, ministries of agriculture, planning and finance and relevant line ministries (e.g. water, public works, energy, environment, health, women's affairs and forestry) to strengthen their capacities on CCA and agricultural issues.

40. NAP-Ag was designed (and implemented) to achieve its objectives through a pathway of the following outcomes:

Outcome 1. Technical capacity and institutions of NAPs strengthened. This involved building and strengthening the technical and institutional capacities of key ministries in the target countries *inter alia* the ministries of agriculture, the ministries of environment, the ministries of finance, the ministries of forestry, etc. This was in a bid to assess and build on already existing adaptation priorities, as well as mainstreaming these priorities into their planning and budgeting processes. The key strategy towards this outcome involved the design of CCA-focused core curriculum and training programmes.

Outcome 2. Integrated roadmaps for NAPs developed. Through training workshops, consultations and connection of country adaptation programmes to international sources of climate finance, the programme aimed to lay the groundwork for countries to begin the integration of CCA into their development policies and strategies at the national and sub-national level, starting with the agriculture sector. Outcome 2 was geared towards ensuring the programme was able to build on already existing tools and strategies.

Outcome 3. Evidence-based results for NAPs improved. This outcome was put in place to enable ministries of agriculture to systematically learn about the effectiveness of the adaptation options they choose to implement. This was done through developing impact assessment frameworks and the conducting of sectoral and programme specific CBA of the adaptation options, specifically in the agriculture sectors.

Outcome 4. Advocacy and knowledge-sharing of NAPs promoted. The focus of this outcome was to contribute to build a knowledge base on National Adaptation Planning. This was done by sharing lessons learned and best practices from the capacity building training programmes. Creation of knowledge products to disseminate these lessons learned and facilitation of exchange among countries was part of the strategy. This was done during the duration of the programme through global meetings for the purpose of countries sharing their experiences and pilot projects being able to test the potential of various adaptation options.

41. Each of the outcomes was associated with various outputs. In summary, the programme aimed to achieve these outputs by supporting the countries to i) set national adaptation agendas based on priorities related to the agricultural sectors; ii) enhance regional and global dialogue and cooperation on scaling up adaptation actions that have a bearing on food security and livelihoods; iii) integrate concerns and priorities into relevant national and sectoral planning and budgeting processes; iv) access international climate finance; and v) create collaborations with ongoing programmes, and unlocking innovative sources of climate finance that can support adaptation in the agriculture sectors.

3. Key findings – Answers to evaluation questions

3.1 Alignment & relevance

EQ 1. Was the NAP-Ag design appropriate for delivering the ultimate objective of “Climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes” and the planned outcomes?

Finding 1. The programme’s design was appropriate to catalyse delivery of its ultimate objective. The design allowed for the tailoring of activities, outputs and outcomes according to countries’ contexts (such as capacity, conducive environment and institutions). Partnerships and funding strategies were coherent with the country-driven design and targeted in accelerating the implementation and in triggering sustainability strategies towards transformational change.

42. The programme was designed and implemented as a “menu” of options from which the countries would select activities relevant to their context, and those that could be executed considering the status of the existing national capacities, ease of entry points and complementary partnerships. The programme was flexible in the pathway countries that chose to realize the outcomes.
43. The programme’s design envisaged leveraging upstream and downstream strategic partnerships whose collaboration expedited the realization of its objective given their abilities to convene, facilitate and aggregate the integration pathway. This included i) national ministries with the direct and indirect agricultural mandates (ministries of agriculture, environment, finance and planning, water, forestry; national drought management authorities, meteorological departments and so on); ii) academic and research institutions on agriculture and climate change; iii) international development agencies or organizations present in the countries; and iv) NGOs, civil society organizations and other stakeholders who were the connectors between the policy and practice space.
44. The programme’s resource allocation was designed as seed funding (as opposed to service delivery), geared towards upstream processes that would serve as foundational to influence policies, planning and institutional strengthening, towards realizing the programme’s objective.

EQ 1.1. What is the added value of the NAP-Ag design as a global programme?

Finding 2. The global programme design promoted knowledge sharing among countries, thus increasing efficiency and effectiveness, participation in several international fora, such as COPs and NAP Expos, uniform methods for trainings, reduction of costs, risk management, and opportunities to benefit from the pool of national and international experts and resources. NAP-Ag supported countries in the UNFCCC processes NAP, NDC under the Paris Agreement and informed the Koronivia Joint Work on Agriculture (KJWA) on the importance of adaptation and NAPs.

45. The intention of the global programme was to allow countries to benefit by adapting and applying knowledge experienced and documented by other countries to increase efficiency and effectiveness of what works and what does not, in order to avoid re-inventing the wheel, thus saving time and resources. One of the programme’s outcomes was to promote knowledge by sharing lessons learned and promising practices. Targeted countries undertook case studies such as safeguarding livelihoods and promoting resilience through NAPs. Countries – as well as programme teams - participated in several exchange opportunities to share and learn lessons, and were able to share learning regarding the NAP-Ag roadmap and M&E framework through participation in face-to-face or web-based regional, national and international platforms, reports, NAP Expos, workshops and so on. The knowledge products generated were subsequently shared in organized fora and publications such as the periodical reports by NAP-Ag program to UNFCCC

on the progress of formulation & implementation of NAPs by LDCs (UNFCCC, 2019). Such documents are evidence of the progress made as a whole and showcase the concerted efforts from various countries.

46. The programme also supported countries' participation in the UNFCCC processes including inter-sessional UNFCCC meetings to address NAP and gender concerns and COPs to represent their countries' voices on the importance of adaptation and agriculture. In summary, NAP-Ag supported countries in the UNFCCC processes NAP, NDC under the Paris Agreement and informed the KJWA on the importance of adaptation and NAPs.
47. Countries were able to draw down on the expansive pool of national and international expertise mobilized by UNDP and FAO to support implementation of the programme. Examples include: gender mainstreaming training in Kenya that was co-facilitated by policy experts from the Global NAP support team; cost benefit analysis (CBA) training in Uganda which was co-facilitated by two international consultants from the FAO Office of Climate Change, Biodiversity and Environment (OCB); CBA and impact evaluation support provided in, respectively, Thailand and Zambia, by UNDP. This approach also resulted in benefits such as i) having a uniform methodology, e.g. for the trainings; ii) reducing costs by reducing the replication of the services rendered in each target country; and iii) ease of finding competent technical support where the national capacities are inadequate.

EQ 1.2. To what extent was FAO's and UNDP's support to targeted countries relevant? How did the programme design respond to the needs, priorities and capacities of the programme's main counterparts at national level?

Finding 3. The programme was designed based on the needs of the countries and was in line with the country's national programmes, policy frameworks, and existing capacities and needs. FAO and UNDP conducted consultations and assessments that informed the design of NAP-Ag in each of the countries. The agencies shared responsibilities and built on each other's specific expertise and long experience. NAP-Ag also directly contributed to the implementation of the current (2017) FAO Climate Change Strategy and UNDP's 2018–2021 Strategic Plan.

48. As explained above, NAP-Ag was designed for the tailoring of activities, outputs and outcomes according to countries' contexts (such as capacity, conducive environment and institutions). Hence, the programme's goal converged with the priorities accentuated in national instruments in all countries. A list of those instruments is provided in Appendix 3 and further referred along the report.
49. To tailor the programme design to each country, at the beginning of the implementation FAO and UNDP technical experts visited focal ministries (i.e. ministries of agriculture) to discuss the programme design, including the needs/priorities of the country. Such consultation processes helped to accommodate priorities of the country. Assessments of the countries' normative and institutional frameworks and policy environments were also carried out, as well as capacity assessments to identify strengths, weaknesses and gaps. These studies informed the programme design in each country, including capacity enhancement and institutional strengthening activities.
50. The consultation processes included meetings and workshops with key-stakeholders in the climate change and agriculture arena. Given the programs set in each country, FAO and UNDP took responsibility of the areas in which they had expertise and long experience (more details on FAO and UNDP specific contributions and advantages are provided in EQ 1.5).
51. NAP-Ag also directly contributes to the implementation of the current (2017) FAO Climate Change Strategy, in particular Outcome 1 (aimed at enhancing institutional and technical capacities of

Members) and Outcome 2 (improving integration of food security, agriculture forestry and fisheries within the international climate agenda). Also, it contributes to UNDP's 2018–2021 Strategic Plan under signature Solution 3 (enhance national prevention and recovery capacities for resilient societies).

EQ 1.3. How did the programme design respond to the needs and priorities of the programme's main counterparts at the global level (e.g. UNFCCC)?

Finding 4. The design responded to specific concerns of global partners such as UNFCCC and was aligned with work outlined by LDC Expert Group (LEG) and the Adaptation Committee of the UNFCCC, and to the NAP technical working groups. NAP-Ag included support to countries to comply with commitments of the Paris Agreement and with the SDG 13 goal on climate action. Evidence is carried to support countries in preparation and submission of NDCs and participation in several global fora, including COPs and KJWA.

52. One of the major global counterparts to the programme was UNFCCC. It mainly concerns supporting developing countries in the integration of CCA in National Adaptation Planning which includes mobilization of technical and financial resources. In line with the priorities of UNFCCC, NAP-Ag sought to provide financing for the implementation of CCA strategies. In particular, NAP-Ag was aligned with work outlined by LEG and the Adaptation Committee of the UNFCCC, as well as to the NAP technical working groups. The results of the programme respond to the UNFCCC Draft Conclusions FCCC/SBI/2013/L.10/Add.1 and SBI/2014/L.19, and it is also in line with the decision 12/CP.18, para 8. The programme is consistent with the Subsidiary Body for Scientific and Technological Advice (SBSTA) draft conclusions on adaptation issues related to agriculture (SBSTA/2014/L.14). It also provided support for countries to participate in the UNFCCC negotiations including inter-sessional UNFCCC meetings to address NAP, gender, agriculture and land sector concerns.
53. NAP-Ag was also aligned with the commitments of the Paris Agreement and the Hyogo Framework for Action (HFA), a 10-year United Nations (UN)-wide initiative that seeks to scale up efforts to prevent, mitigate and prepare for disasters.
54. The programme was also coherent with the SDG 13 goal by aiming to foster climate change concerns integration into country strategies and policies, seeking to promote mechanisms for capacity building in the area of climate change management, including women and youth in the process.

EQ 1.4. To what extent was the geographical targeting of the NAP-Ag pertinent?

Finding 5. NAP-Ag adequately targeted least developed and developing countries, which are highly dependent on agriculture, are the most impacted by climate change due to their vulnerability to climate variability, are less able to afford its consequences, and need support to formulate evidence-based policies and plans.

55. Most LDCs and some developing countries are grappling with the attainment of SDGs. Climate change threatens the natural and social balance on sustainable development that the goals aim to achieve. By targeting such countries, the programme contributes to adaptation and mitigation to climate change. If left unaddressed, the outcomes of climate change will likely slow down or altogether prevent the efforts and attainment of the SDGs in these target countries.
56. The countries targeted by NAP-Ag are also those whose dependence on climate-sensitive sectors such as agriculture is quite high. This makes their economies, especially the livelihoods of the smallholder farmers, vulnerable to climate change impacts. In this regard, adaptation is a key response, and its costs and benefits need to be built into policy and planning processes, and supported by local community practices. To effectively do so, the policy makers need home-

grown data to guide appropriate policy making. However, there is inadequate economic data specific to in target countries on CCA. Part of the programme design included case studies on CBA on various variables. For example: i) assessing agro-forestry practices and soil and water conservation for CCA in Kenya; ii) climate expenditure review in Colombia, and iii) appraising cost of options- climate change risk and vulnerability assessment of agro-ecological zones of Nepal and appraising CCA measures in agriculture. Hence, the programme appropriately targeted countries with low adaptive capacities to strengthen their capacities to conduct economic analysis of climate change and adaptation options, and feed the resulting information into local and national policy making processes.

57. Selection of countries also paid attention to *regional distribution to cover continents and to balance between LDC and developing countries*. It also considered countries' needs and interest and avoided overlapping with other programmes by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety.

EQ 1.5. To what extent were UNDP and FAO's comparative advantages and existing complementarities with other partners taken into account in the project design?

Finding 6. The partnership of FAO and UNDP in the design of this programme accentuated both organizations' abilities as convenors, facilitators and aggregators to broker the pathway towards the programme's goal. The technical expertise, competences, strong national networks, engagement with UNFCCC and complementarities of these organizations with other partners were also taken into account while designing the programme.

58. Based on their respective mandates and standing contribution to national development, both FAO and UNDP were able to convoke inter-sectoral and national actors⁴ to provide a national platform that catalysed traction and a pathway towards commitment to action on CCA in agriculture sector. This was particularly evident in the national NAP-Ag road maps development processes in Kenya, Uganda, Viet Nam, Guatemala and Thailand, that brought together the different players to deliberate and reach a consensus on the steps to follow to integrate agriculture into the existing NAP or ongoing NAP processes.
59. Countries were able to draw down on the expansive pool of national and international expertise to support implementation of the programme. Examples include gender mainstreaming training in Kenya that was co-facilitated by policy experts from the Global NAP support team and the CBA training in Uganda, Nepal, Viet Nam, Colombia, which were co-facilitated by international consultants from FAO's Office of Climate, Biodiversity and Environment (OCB).⁵ Similarly, CBA training in Thailand with UNDP consultants from the Climate Change Adaptation (CCA) team, sensitisation on gender and market development by UNDP consultants on the private sector from the CCA team, impact evaluation training with the support from experts of both UNDP and FAO CCA team. The program also supported the Roadmap for Adaptation Planning in Agriculture Sectors in Thailand.
60. In addition, the programme design took into consideration both organizations' vast experience and expertise in gender mainstreaming⁶ in national adaptation and planning processes. The approach used was aligned to international commitments such as the Gender Action Plan and the KJWA.

⁴ Technical experts from agriculture, fisheries, forestry, livestock, environment and planning ministries; non-state actors.

⁵ Formerly the Climate and Environment Division (CBC).

⁶ Joint submission by UNDP and FAO to UNFCCC in relation to the "call for submissions on how to mainstream gender considerations into national adaptation planning and implementation" of the Adaptation Committee.

61. The competencies of both organizations to deliver on the results of this programme were taken into account in the design of the programme. This enabled a clear division of labour between FAO and UNDP.⁷ In addition, both organization's innovative field experiences, analytical support, tools and data led to effective normative and standard-setting.
62. FAO and UNDP had previously been engaged at country level and had partnerships with host line ministries; FAO with the ministries of agriculture and UNDP with the ministries of finance and planning. In each country, depending on the institutional set up and on the specific NAP-Ag plan, other ministries were also involved, such as the Ministry of Federal Affairs and General Administration in Nepal, the Ministry of Environment and Sustainable Development in Colombia and the Ministry of Housing, Land Planning and Environment in Uruguay. This promoted partnerships with national institutions, other UN agencies, the private sector, academia and civil society. This is evident in the NAP-Ag products such as the Kenya Climate Smart Agriculture Implementation Framework, Roadmap for Adaptation Planning in Nepal's Agriculture Sector and Uruguayan Agriculture NAP, and the Report on Lessons Learned and Way Forward for Integrating Agriculture in the Philippines.
63. The engagement by FAO at the UNFCCC has accentuated the role of agriculture in CCA and mitigation through the provision of technical information and addressing climate risks for the agriculture sectors. UNDP's NAP-Global Support Programme and overall engagement with UNFCCC on NAP process and NDCs has been instrumental in synergizing the Paris Agreement targets with NAP-Ag's goal.
64. The programme also consulted with other on-going IKIs such as the International Institute for Environment and Development (IIED)-led *Ecosystem-based Approaches to Adaptation: Strengthening the Evidence and Informing Policy* and with Green Climate Fund (GCF) Readiness Programme to support preparing intended nationally determined contributions (INDCs). NAP-Ag also applied knowledge gained on the effectiveness of ecosystem-based adaptations (EbAs) and used it to develop a research methodology on assessment and monitoring tools for evaluating adaptation options. The programme also liaised with the World Bank's global Pilot Program for Climate Resilience (PPCR) which builds on National Adaptation Programmes of Action by funding technical assistance to support the integration of climate risk and resilience into development planning. In Africa, one of the core linkages was established with the New Partnership for Africa's Development (NEPAD)⁸ programmes on agriculture and climate change which is expected to reach 25 million farmers by 2025.
65. Finally, NAP-Ag drew extensively into knowledge and capacities at country level, through public or private institutions such as universities, research centres, as well as civil society organizations, such as the Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation in the Philippines. These organizations provide in-depth knowledge of aspects such

⁷ FAO was the lead implementer in activities such as: i) training in economic valuation and CBA in CCA options in the agriculture sector; ii) support to climate sensitive investment plans for the agriculture sector; iii) develop the capacity of agriculture-based impact assessments to monitor the effectiveness of adaptation; and iv) generate evidence-based case studies. UNDP was the lead implementer in activities such as: i) training in adaptation sensitive planning and budgeting; ii) development of training materials and decision tools for prioritizing investment options and low emissions development pathways; iii) development of roadmaps for integrating climate change actions into the agriculture sector through cross-sectoral consultations; iv) updating cross-sectoral national development plans that address climate change concerns in the agriculture sector; and v) designing impact assessment frameworks on agriculture based livelihoods.

⁸ Comprehensive Africa Agriculture Development Programme (CAADP).

as country-specific normative, policy environment, capacities, stakeholders, which were fundamental to achieve results.

EQ 1.6. To what extent were gender equality considerations and human rights reflected in the programme design?

Finding 7. The programme design explicitly recognized that women are a significant actor in the agriculture sector, and more specifically, the pivotal role they play in inadvertently enabling acceleration of climate change if alienated, or slowing down its impact if involved. The design delineated areas for inclusion of women, among which the collection of gender disaggregated data, emphasis/focus on gender in trainings, gender-focused case studies, and gender-specific indicators.

66. The programme highlighted the inclusion of women in various interventions. Skills and capacity assessments were conducted to identify the existing capacities, opportunities and gaps on mainstreaming CCA at institutional level.⁹ To this extent, the programme required the assessment data to be gender-disaggregated. The intention was to show the disparities between the capacities that exist between men and women so as to allocate resources based on the needs identified. Case studies of adaptation options were tested/analysed and focused on gender inclusion in the agriculture sector.
67. The programme took into consideration that gender issues are a pre-requisite for sustainable development and adaptation action. To this extent, the design sought to mainstream gender in various ways, including:
 - i. ensuring the needs of women are represented in the NAP development process through gender engagement in stakeholder consultations;
 - ii. identification of differential needs and adaptation options of men and women to be integrated into gender-responsive data collection systems;
 - iii. use of appropriate gender responsive communication channels to share and transfer knowledge through gender advocacy groups; and
 - iv. tracking of gender dimensions of the results through specific indicators.
68. Gender mainstreaming was also reinforced in the project design through additional funding of EUR 5 million in 2017. This supported new activities to promote women empowerment through market development and strengthening capacity building on gender and led, among other things, to the development of the "Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness".
69. A key milestone for the NAP-Ag program was the development of the Gender Training Guide (FAO, 2019) that served as a resource on experiences on gender mainstreaming in the NAP-Ag countries. This resource was shared with more than ten partners including the UNFCCC gender team and IKI for gender mainstreaming approaches.
70. The programme took incremental steps in ensuring a catalytic approach towards gender mainstreaming. This involved trainings, for example in Kenya, that strengthened institutional and technical capacities to improve public officers' skills to mainstream gender issues in CCA policies, plans and projects for the agriculture sector (FAO, 2016), and development of knowledge products, such as the case study developed in Uruguay that documented the country's experiences in collecting and analysing sex-disaggregated data to generate information about

⁹ Output 1.1 – 1.1.1.

resources as well as symbolic, cultural and economic barriers that affect adaptation in agricultural production from a gender perspective (FAO, & UNDP, 2019).

71. The results framework included results to demonstrate gender differentiated needs and adaptation options (Outcome 3). This was to be attained through undertaking the CBA of adaptation options. The aim was to draw from good practices of ecosystem-based adaptation experiences and case studies which would be used to recommend how to support livelihoods for small holder farmers. Gender-sensitive indicators were designed to measure the effectiveness of adaptation options.¹⁰

EQ 1.7. To what extent was the programmes’ results framework/log frame (i.e. theory of change, intervention logic, indicators, etc.) appropriate to reach the programme’s goal and objectives?

Finding 8. The programme’s theory of change was appropriate to reach the proposed goal and objectives. It is understandable, verifiable, testable, plausible and inclusive. The programme result framework was flexible to address the country’s specific needs and priorities and countries selected programmes as per their needs. The objectives, components and outputs are clear and appropriate to the issues, but some of the indicators were ambitious considering the timeframe and budget of the programme.

72. The logic of the NAP-Ag as expressed in its theory of change (TOC) was as follows: if i) the individual and organizational capacities on adaptation-sensitive planning and budgeting, economic valuation including costing and cost-analysis for CCA options in the agriculture sector is strengthened; and if ii) the integration of agricultural concerns into the national cross-sectoral NAP processes and formulation of climate-sensitive investment plans for the agriculture sector is improved; if iii) the assessment and monitoring of the effectiveness of adaptation, including gender-differentiated adaptation options is enhanced; if iv) sharing of evidence-informed knowledge is increased; then v) integration of climate change concerns as they affect agriculture sector-based livelihoods into associated national and sectoral planning and budgeting processes will be strengthened. The visual representation of NAP-Ag TOC can be reviewed at Appendix 4.
73. In this regard, the evaluation found that the programme had a sound TOC, according to the following criteria:
- i. Understandable. The TOC was easy to understand and did not leave gaps that could lead to different people interpreting it in different ways.
 - ii. Verifiable. The TOC can be verified through the evaluation’s findings and analysis, for example technical staff and public officers trained on CBA.
 - iii. Testable. There are clear causal links between the events, for example training on monitoring and evaluation and the development of a functional monitoring and evaluation framework.
 - iv. Plausible. There was prior evidence that could be mirrored from other related programmes, that the sequence of events depicted in the TOC were plausible while taking into consideration countries’ contexts, for example Ecosystems-based approaches to adaptation: strengthening the evidence and informing policy programme in Kenya, which

¹⁰ Such as “number of gender-neutral adaptation action areas prioritized by the agriculture sectors and commenced implementation in the context of existing national and sub-national development frameworks” (programme objective), and “number of national and sub-national planning and budgeting roadmaps formulated, taking gender into account to guide the process of integrating climate change concerns affecting livelihoods into the agriculture sector (Outcome 2).

focused on assessing EbAs' effectiveness and the development of research methodologies in Kenya and Uganda.

- v. Inclusive. The TOC encompassed the diversity of the implementation context, for example targeting a wide array of stakeholders.

74. With regards to the results framework, the evaluation makes the assumption that the programme objective is the equivalent of the programme goal or impact. That said, the programme objective was "climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes". It describes an instrumental change that can be influenced by the programme, but does not clearly state the long-term transformational changes that will result from it.
75. The original designed outcomes described output-like results, which were mostly under the control of the programme (most of these results were obtained with, for example, funding by the programme, even if executed by or with partners) (e.g. Outcome 2 – integrated roadmaps for NAPs developed). The outcomes mostly describe what the programme will do, but not what changes these programme actions will cause to happen. For example, once the advocacy and knowledge was promoted (Outcome 4), which would be the expected effects?
76. As a consequence, some of the indicators proposed were not appropriate and adequate to measure the result level. For example, the indicator on "technical capacity and institutional building on NAP-Ag strengthened" (Outcome 1) focused on "proportion of people trained" without looking at the results of such training like changes in practices, systems or processes that such stakeholders have adopted in their organizations as a result of the training, or the enabling environment that has been positively changed as a result of the capacities strengthened.
77. The Mid-Term Review of NAP-Ag in 2018 recommended modifications in output indicators. While revising the result framework to address the recommendation, besides changes in a few indicators (1 indicator of objective, 1 indicator each of outcomes 2 and 3), the four outcomes were also termed as outputs in the new result framework (after the agreement with the IKIs). Terminal reports from the global office, since then, started using the modified terminology, while the country project teams continued using the old terminology (i.e. four outcomes). The design analysis discussed (EQ 1.7) the old result framework which is part of the project document. The usefulness of the recommendations of the MTR is discussed in (EQ 4.4). The results framework presented in Appendix 4 follow the modified terminologies and indicators as also used by the global office. The revised indicators are achievable and realistic to the time frame.

3.2 Effectiveness

EQ 2. To what extent (and how) has the programme contributed to the integration of agriculture in national adaptation plans and sectoral planning and budgeting processes? (Programme Objective)

Finding 9. The programme involved and convened multiple stakeholders, which resulted in effective consolidation of inputs from the interdependent sectors and identification of policy entry points to integrate agriculture in the NAPs and in the sectoral planning and budgeting processes. NAP-Ag was a catalyst towards enabling target countries to advance in their respective NAP processes by supporting them to develop supplementary documents and tools, since not all countries were at the same stage of development.

78. The programme convened and involved multiple stakeholders ranging from the public sector, academia and research institutions, policy makers, civil society organizations, NGOs and

community-based organizations to accentuate their common climate change challenges and identify the nexus of response through the integration of policies and practices in NAPs and sectoral planning and budgeting processes. The landscape approach facilitated to i) balance competing demands; ii) accelerate uptake by cross-sectoral policy makers; and iii) reduce resistance towards implementation on the ground. By involving these multi-stakeholders, NAP-Ag effectively consolidated the inputs from the interdependent sectors and policy entry points to integrate agriculture in the NAPs and in the sectoral planning and budgeting processes. This is evident in the NAP-Ag's plans and roadmaps developed that classify various options based on various interdependent sectors into a holistic national adaptation plan.

79. The recognition of the approach was evident in some countries where the planning and budgetary authorities required that all ministries integrate CCA in their national priorities' budgets. Case in point is Uganda where a budget call circular requires that all work plans and associated budgets support the effective implementation of cross-sectoral investments which include climate change concerns. Similarly, in Nepal, climate change consideration is mandatory in budgeting exercises of all sectors and, in addition to that, NAP-Ag contributed in provisioning budget coding in the Ministry of Agriculture budgeting exercise.
80. The programme supported further development of supplementary documents in all countries. The roadmap for climate smart agriculture strategies and implementation framework, NAPs for the agriculture sector, M&E frameworks, etc. are a few examples. The following questions further elaborate on the programme achievements per outcome, and the sustainability and progress to impact sections add more light to the envisioned future developments from such achievements.

EQ 2.1. To what extent did the programme contribute to strengthen countries' capacities and institutional environment to advance the NAP process and to scale up adaptation, in particular with regards to the agriculture sectors? (Outcome 1)

Finding 10. The NAP-Ag programme strengthened the capacity of relevant institutions through trainings and sensitization workshops which were tailored as per countries' needs on a variety of topics. Trainings were defined with countries after needs assessments. It also created institutional environments by establishing inter-sectoral coordination/cooperation and facilitating important policy and planning transformation. It also fostered South-South cooperation.

81. The capacities strengthening strategy adopted by the programme was preceded by needs assessments of the skills and capacities of the agriculture, forestry and fisheries ministries and of other stakeholders/institutions to determine the number and skill set of trainers needed. Subsequently, trainings for multi-stakeholders were organized on various topics which included CBA, budgeting for adaptation options, vulnerability assessment, gender integration into adaptation planning, use of decision-making tools on CCA, impact evaluation and monitoring, evaluation and reporting (MER).
82. The trainings were attended by multi-sector stakeholders, such as staff from relevant ministries at national to sub-national levels (including municipalities), civil society organizations, academic institutions, subnational/local government officers, members of parliament (e.g. in Uganda and the Gambia) and members of technical working groups of NAPs.
83. In Guatemala, the programme contributed to develop the Ministry of Agriculture, Livestock and Food training plan for capacity building in climate change, to support the implementation of the Strategic Plan for Climate Change 2018–2027 and its action plans. It is expected that 1 350 government officials will be trained. In addition, it supported technical and professional staff from the Ministry of Agriculture, Livestock and Food in three training and institutional strengthening

processes in 2018 and 2019, including a diploma course on "Science and Technology of Irrigation in the Framework of Adaptation to Climate Change" for the staff from the Irrigation Department across the country, and five workshops with extension workers of 52 municipalities in the dry corridor region.

84. The training modules were very effective in promoting CCA related to the agriculture sector to support scaling-up of adaptation. In Nepal, Viet Nam and Thailand, the programme trained agriculture sector relevant staff from national- to sub-national level to monitor effectiveness of adaptation options, climate change impacts on agro-ecological systems, etc., and case studies were conducted to generate information relevant to climate change impact in the agriculture sector. In Nepal, the Ministry of Agriculture and Livestock Development adopted a training module developed by NAP-Ag in its regular extension staff training programmes. In addition, based on the NAP-Ag work, the Government of Thailand adopted risk assessment and adaptation planning guidelines for the agriculture sectors which are being replicated by other agencies.
85. To gain a greater insight into the drivers and obstacles on implementation of the NAP-Ag process, the programme documented the incentives and impediments through a case study that assessed the institutional barriers to NAP implementation in Kenya's agricultural sectors (FAO & UNDDP, 2017). The findings of this study have guided reforms in Kenya's institutional arrangement for climate change. To this end, Kenya now has a Climate Change Coordination Unit within the Climate Change Directorate.
86. By enhancing the capacity of relevant institutions through different types of activities, including trainings, the NAP-Ag programme strengthened the institutional environment to advance the NAP process and scale up adaptation, by creating or reinforcing linkages among stakeholders that are sustained after the programme's closure.
87. In Colombia, the programme supported improvement in communication and coordination between institutions with direct and indirect competencies on the agriculture sector, including better articulation between the Ministry of Agriculture, the Ministry of Environment and the National Planning Department (for example, conformation of the NAP-Ag Committee). An example of this is the incorporation of NAP-Ag results in the update of the NDC for the period 2020–2030 lead by the Ministry of Environment and presented by the President of Colombia during the Climate Ambition Summit in December 2020.
88. In the Philippines, stakeholders interviewed confirmed that due to the collaboration within the NAP-Ag, there is increased understanding and collaboration between the Climate Change Commission (CCC) and the Department of Agriculture. The programme's activities provided these organizations with opportunities to communicate, and ultimately strengthened the inclusion of the adaptation options in the Agriculture and Fisheries Modernization Plan (AFMP), which is the food security component of the Philippines National Climate Change Action Plan (NCCAP). According to the interviewees, the partnership and cooperation between the CCC and the Department of Agriculture is key and was gaining momentum as the Philippines was preparing the NDC. As a result of workshops supported by NAP-Ag in 2018 with the Department of Agriculture and the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) for harmonization of programmes and data sharing, the two institutions have drafted a Memorandum of Understanding (MOU) in 2019 to share climate information data and were already sharing data even before the formal agreement. The harmonization workshops identified the need to establish protocols on data-sharing.

89. Other country processes leveraged the opportunities presented by the NAP-Ag programme to further advance their objectives regarding the NAP process. In the Gambia, the programme organized an NAP sensitization forum that convened various stakeholders to dialogue on the NAP-Ag framework. Using this forum, the stakeholders were able to agree on the CCA priorities in the Ministry of Agriculture and its institutional set up (departments and research centres) that would inform the overall NAP and NDC processes in the country. The same forum (trained & experienced personnel) provided inputs into the process of NAP development, which is coordinated by the Department of Water in the country.
90. The programme also facilitated South-South cooperation, which helped to exchange knowledge for mutual benefits and for improved capacity and support to share lessons from the projects at regional, national and international platforms. It also helped to mobilize funds for climate change activities. More details on these activities and related results are further provided.

EQ. 2.2. How effective has the programme been in integrating or paving the way to integrate CCA into development policies and strategies at the national and sub-national level, starting with agriculture as the key sector? (Outcome 2)

Finding 11. NAP-Ag was instrumental in paving the way to integrate CCA into development policies and strategies. This was realized by preparing training and knowledge sharing interventions that formed the premise upon which individual and institutional capacities of the appropriate staff, line ministries and interdependent institutions on adaptation planning in the agriculture sector were strengthened. Subsequently, target countries were able to integrate adaptation planning into their national policies and processes.

91. As earlier presented, NAP-Ag developed and supported trainings, assessments, sharing of knowledge, participation in international fora, and developed studies and evidence to support the integration of agriculture-specific adaptation options into countries' NAPs. In collaboration with several partners in each of the countries, NAP-Ag also supported the development of roadmaps, defined as a "strategic planning exercise or framework that identifies nationally-specific, sequential set of steps, activities, milestones and responsibilities that would need to be carried out and assigned at both national and sub-national levels to implement the NAP."¹¹
92. The roadmaps supported by NAP-Ag are useful for further reform of agriculture sector strategies and action plans to ensure security of agriculture dependent livelihoods, including poor and indigenous communities, and to reduce their vulnerability. They contribute to address adaptation concerns through systematic mainstreaming in planning and budgeting processes. The roadmaps emphasize stakeholders (including women, indigenous and poor communities) through a working group approach focusing on formulation of NAP for the agriculture sector adopting an approach of "leave no one behind". The roadmaps contribute in stakeholder coordination from provincial to local level, downscale the information to local levels for CCA planning, develop comprehensive lists of adaptation options covering wide subsectors, integrate sector perspectives into NAP-formulation, readjustment into the agriculture development strategies, develop implementation strategies and financing frameworks for priority options.
93. To develop roadmaps, staff from various relevant institutions in all countries were trained on using decision making tools and methods such as i) systematic protocol for estimations of loss and damage due to climate events in agriculture; ii) prioritizing investment options and low emissions development pathways; iii) CBA of adaptation options and development to inform evidence-

¹¹ This concept applies also when the exercise or framework is not officially termed a "roadmap".

based decision making, planning and budgeting; and iv) implementation of an impact evaluation for the agriculture sector.

94. As a result of the trainings, some countries developed adaptation planning tools such as Uruguay which used FAO's Modelling System for Agricultural Impacts of Climate Change (MOSAICC) to analyse climate risks and assess climate vulnerabilities and the National Adaptation Plan to Climate Variability and Change for the Agricultural Sector (PNA-Agro).¹² The PNA-Agro (or NAP-Agro) is a strategic instrument that will help Uruguay to achieve the national adaptation and mitigation commitments established in their first NDC, under the Paris Agreement, as well as contribute to SDGs.
95. In this context, the programme facilitated intentional and strategic linkages between NAP-Ag and the already existing national planning mechanisms to enable CCA in planning and implementation within the agriculture sector. In planning, the programme facilitated dialogue among the multi-stakeholders to ensure that the adaptation planning processes are mutually supportive while taking diversity (multi-stakeholders) into account; while in implementation, the integration of spectral issues facilitated coordination and collaboration among the relevant stakeholders. Some of the integration examples that NAP-Ag enabled are provided in the below paragraphs.
96. Implementation of the NAP-Ag became an integral part of the country's NDC partnership workplan in Uganda. Five key-focus areas, including climate change governance, monitoring and reporting greenhouse gas (GHG) emissions, gender responsive adaptation, capacity strengthening and resource mobilization were identified for support in the NAP-Ag through this partnership. Climate change concerns have been integrated as national cross-cutting priorities in national budgets and have also been integrated into the Third National Development Plan (NDPIII 2021–2025).
97. The Kenya Climate Smart Agriculture Strategy and Kenya Climate Smart Agriculture Implementation Framework (this one launched in October 2018) are guiding both state and non-state actors in the agriculture sector to implement adaptation activities. NAP-Ag supported the development of these documents, as well as the finalisation and adoption of Kenya's NAP presented to UNFCCC in 2017 (agriculture is one of the priority sectors covered).
98. The Department of Agriculture of the Philippines has institutionalised the Climate Resilient Agriculture (CRA) Office to respond to the growing requirements on disaster and climate resilience for the agriculture and fisheries sector, and the Bureau of Fisheries and Aquatic Resources (BFAR) has promulgated agency guidelines for the implementation of climate change and disaster risk reduction and management in fisheries.
99. Development of the five-year agriculture development plan and rural development (2021–2025), climate change response action (2021–2030) and NDC of Viet Nam are ongoing. The country decided to integrate CCA in this plan. Similarly, the Decree No. 02/2010/ND-CP was revised to incorporate indicators on gender and women's economic empowerment in the agriculture extension and new Decree No. 83/2018/ND-CP was issued on 4 May 2018. NAP-Ag also contributed in developing and publishing technical guidelines on prioritising climate-responsive investment decisions for new programmes in the Mekong Delta, in collaboration with the Vice-Minister of Planning and Investment of Viet Nam. The guidelines are being implemented within the Ministry of Planning and Investment's budgeting system for the Mekong Delta as part of the

¹² The PNA-Agro proposes a strategy for 2050 and an action plan for 2025, with adaptation measures in four dimensions: i) production systems; ii) ecosystems and natural resources; iii) livelihoods; and iv) institutional capacities.

implementation of Resolution No. 120/2017/NQ-CP on Sustainable and Climate-Resilient Development of the Mekong Delta.

100. With the support of NAP-Ag, the Ministry of Agriculture and Development of Colombia finalized the Integral Climate Change Management Plan (PIGCC), a comprehensive plan formulated for the agriculture sector, including both adaptation and mitigation. Its formulation process was framed in national legislation and international guidelines and commitments such as the NDCs and the national climate change policy. The PIGCC is the sector roadmap for country guidance on addressing climate change needs.
101. In Nepal, the programme supported the preparation of Agriculture Development Strategy (ADS) based on sector development pathways (roadmap) for further reform in the agriculture sector to secure agriculture dependent livelihoods from potential natural disasters. The document is timely as the Ministry of Agriculture and Livestock Development is in process of reviewing the ADS, where its findings and recommendations are fully applicable.
102. Also, in Nepal, at the sector level, tracking climate-relevant budget within regular development programmes in the agriculture sector has been improved by developing a method to track budget at the activity level that helps increase accuracy of the budget as well as identifying climate vulnerability and target beneficiaries, including gender. The Ministry of Agriculture and Livestock Development adopted the new method while formulating the annual budget from fiscal year 2019/20 at the federal level and gradually rolled it out to the sub-national levels in the following years. Similarly, this programme promoted agroecological zones or land unit-based adaptation planning and application of an economic cost-benefit methodology in prioritization of adaptation options.
103. As a result of the awareness raised by the NAP-Ag on climate change, some countries proposed risk transfer options such as index-based insurance in Kenya Climate Smart Agriculture Implementation Framework (KCSAIF), Uganda NAP and the Second Gambia National Agricultural Investment Program (GNAIP), while others promoted climate smart agriculture options.

EQ 2.3. To what extent was the programme able to support the countries in improving the evidence base to enable countries to implement, in particular in the agriculture sector? (Outcome 3)

Finding 12. The programme was able to improve evidence base on adaptation options by developing a stock-taking exercise, several studies and assessments, development of guiding tools and several other activities. Acquisition and transfer of knowledge and experiences to other related initiatives was facilitated. The evidence generated was shared in the format of lessons learned from different activities and captured in knowledge products. The evidence generated was also basis for the development of the Strategic Plans for Climate Change and/or, NAP-Ag Roadmaps and Action plans. The programme contributed to improve the evidence-base to enable systematic learning about the effectiveness of adaptation options and update climate information. A preliminary stock-taking exercise reviewed available climate change information and data needed to develop the NAP framework. Studies on cost-benefits of different adaptation options, assessment of vulnerability and studies of climate scenarios were conducted, adding information to the knowledge base. Besides, the programme also developed guiding tools to guide studies; screening of NAP options and monitoring and evaluation of the adaptation options; developed indicators to assess results of agriculture sector activities; assessment of vulnerability; assessment of loss and damage using standard protocol; generation of sex disaggregated statistics and provision of gender integration in the development of adaptation options.

104. The programme facilitated the acquisition and transfer of knowledge and experiences to other related initiatives. For example, lessons from the development of the NAP-Ag in Uganda were

used to support the National Planning Authority (NPA) in developing a thematic paper for integrating climate change concerns in Uganda's Third National Development Plan (NDPIII for 2020–2025). This thematic paper proposes adaptation and mitigation actions for climate proofing different sectors such as water, energy, health, urban planning, oil and gas, mineral development, transport, wildlife and tourism. Also in Uganda, lessons learned from NAP-Ag were used to inform the integration of climate change concerns into the Third National Development Plan (2021–2025) (National Planning Authority, 2020).

105. NAP-Ag supported the development of case studies: up-close, in-depth and detailed examinations of various phenomena to improve the evidence base that would inform target countries' implementation of adaptation planning in the agriculture sector. Case studies were produced on CBA (Zambia, Kenya, Uruguay, Guatemala), gender mainstreaming (Zambia, Uruguay, Uganda), vulnerability and risk assessments (Viet Nam, Uruguay) as well as a series of adaptation case studies for each NAP-Ag country highlighting the status of NAPs and providing an overview of approaches, institutional arrangements and solutions for adaptation planning in agriculture. These specific case-studies include rainwater reservoir for irrigation (Guatemala), appraising cost of options (Nepal), conservation agriculture for climate change adaptation (Zambia), assessing agroforestry practices and soil and water conservation for climate change adaptation (Kenya) and agriculture climate risk profiles and integration of climate change adaptation and disaster risk management (DRM) from the updated Agriculture and Fisheries Modernization Plan (the Philippines). Case studies on impact evaluation (Uganda, Zambia, Thailand) and M&E (Colombia, Guatemala and multi-country) were being finalised in February 2021 to be published and shared with the UNFCCC-NAP community.
106. The programme sought to expand the knowledge base through the information collected, analyzed and interpreted through the monitoring and evaluation mechanism. This was ensured by training the technical staff on impact evaluation to determine the efficacy and efficiency of the proposed adaptation options. To buttress the system, some countries, for example Kenya, developed an M&E framework that outlined the practical information the countries required to track and measure progress and performance of the programme, and from which data would be used for decision making. The target countries also used the M&E frameworks to i) determine whether the intended results were being achieved; ii) to alert implementers of the need to make any course corrections as appropriate; and iii) to define the required data and data sources that would be used to make informed decisions. Moreover, in other countries such as Guatemala, support consolidated in the design and national appropriation of a MER system and relevant indicators for the agriculture, livestock and food security sector of the NAP on climate change.
107. The evidence generated was shared in the format of lessons learned from different activities and captured in knowledge products (further explained in EQ 2.4). The evidence generated was also basis for the development of the Strategic Plans for Climate Change and/or, NAP-Ag roadmaps and action plans (as per countries' needs and priorities) to support development and implementation of adaptation plans for the agriculture sectors of the programme countries, as presented in question 2.2 above. The workshops and supported participation, learning and sharing at regional/national/international platforms also added knowledge to the knowledge base.
108. The programme also facilitated piloting of some adaptation options. In Uganda, this included the use of irrigation from a wetland for growing crops and use of improved pasture. The knowledge generated from these activities will be used to improve the adaptation practices.

EQ 2.4. To what extent was the programme able to support the consolidation of a knowledge base on national adaptation planning by promoting the sharing of lessons learned and best practices? (Outcome 4)

Finding 13. NAP-Ag supported consolidation of a knowledge base on national adaptation planning by convening a series of advocacy and knowledge sharing events, capacity enhancement activities, development of guidelines and a monitoring mechanism with standard indicators and information from the case studies, implementation, monitoring and evaluation of climate actions in the agriculture sector. An online knowledge tank consolidated several knowledge products that are now available for ample and free access and use, currently integrated in the FAO Climate Change Knowledge Hub, launched in late 2020.

109. NAP-Ag contributed to improve the evidence-base to enable systematic learning about the effectiveness of adaptation options and update climate information by developing and publishing a series of knowledge products. Among the most relevant documents developed are:
- i. Three supplementary guidelines on addressing agriculture in NAPs, focused on i) agriculture, forestry and fisheries, ii) forestry and agroforestry and iii) fisheries and aquaculture.
 - ii. Gender in adaptation planning for the agriculture sectors: guide for trainers.
 - iii. A series of briefing notes on various topics such as ecosystems-based adaptation, sustainable crop production, climate information services, institutional capacity assessments, CBA, impact evaluation and gender mainstreaming.
 - iv. Strengthening monitoring and evaluation for adaptation planning in the agriculture sectors (guidance material).
 - v. Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness (guidance material).
 - vi. Handbook on integrating agriculture in national adaptation planning (guidance material).
110. Several other knowledge products were developed synthesizing countries' experiences (case studies) and lessons learned, and consolidating knowledge or results of studies developed by the programme in the countries (as described above), including: cost-benefits of different adaptation options, vulnerability and risk assessments, impact evaluations, gender case studies, studies of climate scenarios, and country-focused road-maps for integration of agriculture in NAPs. Additional information on gender-focused knowledge products is provided in EQ2.5a, ahead.
111. The normative work generated by NAP-Ag is consolidated in the NAP-Ag's Knowledge Tank.¹³ Launched in 2017, it focuses in agriculture sector's adaptation to climate change and contains over 300 resources such as tools, methods and other knowledge materials, to inform stakeholders working in areas of CCA, resilience and disaster risk reduction (DRR) in agriculture sectors. It is tailored, in particular, to support the formulation and implementation of NAPs and adaptation planning, and to support alignment to countries' NDCs regarding adaptation commitments. It includes materials and tools from various sources (such as the International Fund for Agricultural Development (IFAD), World Food Programme (WFP), GIZ, CCAFS and World Bank) and FAO tools such as EX-ACT. It also references other databases and platforms, such as FAO's Technologies and Practices for Small Agricultural Producers (TECA) platform, which covers technologies and practices for smallholder agricultural producers, UNDP's website and knowledge-sharing platform, the AdaptationCommunity.net, the NAP Global Network; UNEP's Global Adaptation Network (GAN), and the EbAs solution portal. For sustainability purposes, the resources available

¹³ FAO NAO-Ag Knowledge Tank: <http://www.fao.org/in-action/naps/knowledge-tank/en/>

under the NAP-Ag Knowledge tank have been integrated in the FAO Climate Change Knowledge Hub,¹⁴ launched in late 2020. It gathers knowledge and resources on CCA and mitigation in the agriculture and land use and allows users to connect with peers, experts and capacity building providers.

112. NAP-ag created and fostered several opportunities for knowledge sharing exchange and interaction between countries that have generated positive results. Some examples are:
 - i. Coordinated exchanges among programme management resulted in adaptation and use, by Colombia, of the approaches designed and implemented by Uruguay, namely the "Adaptation Dialogues", a tool for stakeholder consultation, and specific activities on gender and climate change.
 - ii. At national level, Uruguay used the CBA guide as a reference manual for the evaluation of irrigation programmes in the San Salvador River basin.
113. A list of priorities for CCA action for agriculture sectors was developed and shared with NDC and NAP development teams for consideration and inclusion in the NAP of the agriculture sector in Viet Nam. To enhance its reach and usage, the CSA manual developed by the project was made available online for public access for planning and learning.
114. In Zambia, a case study was shared with the stakeholders at workshops and also widely disseminated through online publication (FAO & UNDP, 2020c). The information shared on the need for gender mainstreaming in the Cashew Infrastructure Development programme (CIDP) highlighted the numerous gender issues relevant to cashew cultivation, such as lack of land ownership by women, and a division of labour where gender roles subject women to more chores such as weeding, harvesting, stoking and processes, whereas men are involved in land preparation and ridging. The sharing sought to underscore the increased burden on women who also were responsible for household chores.
115. In **Colombia**, the Ministry of Agriculture and Rural Development has leveraged additional funding to incorporate mitigation ambition actions into the platform for the exchange of adaptation experiences in the agricultural sector supported by NAP-Ag. The platform is considered fundamental in the adoption of knowledge regarding the country's climate change plan for the agricultural sector (PIGCC), as well as in the socialization of successful adaptation experiences that allow territorial governments to identify gaps and opportunities for CCA (for example, agro-climatic bulletins). The platform will be hosted by the Ministry of Agriculture and hosted on their website.
116. In **Guatemala**, three pre-investment studies were developed for community irrigation projects to facilitate the administrative and legal processes that hindered the government financial allocation to irrigation projects. The pre-investment studies allowed the Ministry of Agriculture to make the investment to implement the irrigation systems, through the Irrigation Trust for a total amount of USD 966 245. This was achieved by supporting the implementation of the Irrigation Promotion Policy and providing capacity building for land management and adaptation in the agriculture sector, through coordination with the Irrigation Department of the Ministry of Agriculture and the National Federation of Irrigation Users (FENURGUA).

¹⁴ FAO Climate Change Knowledge Hub: <http://www.fao.org/climate-change/knowledge-hub/en>

EQ 2.5a. To what extent were gender equality issues and Human Rights mainstreamed and addressed in the programme implementation?

Finding 14. The programme design accentuated gender concerns and the benefits of mainstreaming gender. This was done in the form of trainings on gender mainstreaming for a range of audiences, production of knowledge products focused on gender and adaption, technical assessments and studies, inclusion of women in activities, promotion of dialogues and a specific road map that incorporated the gender approach in the context of the NAP for the agriculture sector.

117. Women play a key role in agriculture sector, from production to consumption levels. As a consequence, globally, adaptation is the area of climate negotiations that has given the most attention to gender (WEDO, 2018). This has been in recognition that there are socially determined differences in opportunities, responsibilities and decision-making power that result in climate change impacting men and women differently. Therefore, those with the greatest need for adaptation need to be included in the adaptation planning and processes to ensure that investments are targeted where they are needed most. Women are often under-represented in decision-making spaces including those relevant to CCA.
118. Taking it into account, the programme design accentuated gender concerns and the benefits of mainstreaming gender. Activities included pre-training capacity needs assessments, follow-up coaching by experienced gender experts and follow up “refresher” workshops to enhance gender mainstreaming capacities among the relevant government staffs at the federal and subnational levels.
119. Initial trainings helped to mainstream gender issues in climate risk assessment, planning and budgeting. Technical assessments (vulnerability assessment, economic analysis, adaptation planning and M&E framework) included consideration of gender dimension in integrating adaptation concerns in planning, budgeting and M&E processes.
120. NAP-Ag also developed specific gender and adaptation focused knowledge products, including:
 - i. *Gender in Adaptation Planning for the Agriculture Sector – a guide for trainers* (FAO & UNDP 2019). This guide provides training materials that trainers can use to i) build capacities on how to mainstream gender in adaptation planning in the agriculture sectors; ii) learn how these training materials help stakeholders to develop plans and challenges that relate to gender equality and climate change in agriculture; and iii) practical aspects of organizing a gender mainstreaming workshop including, identifying participants, conducting a needs assessment, designing an agenda and identifying speakers for the workshop; and
 - ii. *Toolkit to integrate gender responsiveness and climate change in value chains and market development* (FAO & UNDP 2020b) with the aim of providing step-by-step guidance on integrating climate change resilience and gender responsiveness into market development strategies for agriculture commodities. The toolkit is designed to help countries in selecting and analyzing value chains for opportunities to i) improve climate change resilience and reduce gender inequalities; and ii) identify and prioritize investments to promote market development in line with these opportunities.
 - iii. The programme also developed case studies to gain a deeper understanding on gender mainstreaming in CCA policies, plans and strategies. Examples include:
 - Zambia – gender mainstreaming and climate resilience in Zambia’s cashew sector;
 - Uruguay – the need for sex-disaggregated data in adaptation planning in Uruguay; and

- Uganda – gender and adaptation planning in Uganda. This also included two videos on mainstreaming gender in adaptation planning for the agriculture sector.
121. The programme included women as participants in various activities, such as the development of the NAP-Ag roadmaps, where diverse women represented various sectors, including the government, NGOs, community-based organizations and civil society organizations, and other stakeholders. The programme went further to ensure that, in Uganda, child care was provided to ensure that women fully participate in the roadmap processes, and training venues were analysed in advance to guarantee accessibility for the disabled and able-bodied.
 122. Significant inclusion was not successful in all countries, though. For example in Guatemala, in spite of calls for equal gender participation in the training processes, and of the existing Ministry of Agriculture's gender policy, men were predominant in capacity building activities, at the national and local levels.
 123. In the Philippines, gender focal points and planning officers of the Department of Agriculture Regional Field Offices, along with officers of selected local government units (LGUs), participated in an intensive coaching session on gender mainstreaming which taught them to i) strengthen adaptation planning by integrating gender-related climate risks as they relate to agriculture livelihoods; ii) recognize gender differences in adaptation needs, opportunities and capacities; iii) ensure equitable participation of women and men in adaptation decision-making processes; iv) equip duty bearers the capacity to integrate gender considerations; and v) facilitate gender information and knowledge sharing among key stakeholders. The training content has been incorporated into the regular training delivered by DA Regional Office 1 to farmers. The content is also disseminated in the Adaptation and Mitigation Initiative in Adaptation (AMIA) Program villages.¹⁵ NAP-Ag also contributed to the integration of gender in the stock-taking exercises, consultations, and policy workshops on the updating of the AFMP.
 124. In Uruguay, there was a lack of information related to climate change and gender, including disaggregated data and statistics. NAP-Ag supported a quantitative and qualitative study of rural female farmers to close the gap of lack of consistent collection of sex-disaggregated data in rural areas needed for better planning and decisions. This was used for the design of the agriculture sectoral NAP. NAP-Ag also supported capacity building and a workshop oriented to women, specifically on how to participate in sustainable rural development processes, especially in relation to adaptation to climate change and variability. A specific adaptation dialogue on women and adaptation was carried out as part of the programme's activities in Uruguay.
 125. In Colombia, NAP-Ag facilitated a workshop to identify opportunities to promote gender-responsive adaptation in the agricultural sector. As result, a roadmap for the incorporation of the gender approach in the context of the NAP for the agriculture sector was presented. The roadmap includes eight steps and has been validated in the field by the FAO Gender team in Colombia.
 126. The programme design and implementation did not speak of human rights directly, but it addresses human rights overall. Mainstreaming gender in planning and budgeting through various activities of this project helped to secure women's right by prioritising gender supportive adaptation plans. Similarly, securing food production and agriculture-based livelihood, it

¹⁵ The AMIA initiative is a first important step for planning the implementation of adaptation actions for Philippine agriculture. Communities in the Philippines that are most vulnerable to climate change have started to implement adaptation strategies; the lessons learned can inform further expansion and scale.

contributes to human rights also. The right to food and the right to decent employment were considered in adaptation options planning.

EQ 2.5b. To what extent has the programme contributed to increased likelihood in the planning for and uptake of gender-responsive adaptation options?

Finding 15. The programme raised awareness to multi-stakeholders on different gender challenges and opportunities in agriculture and the need for evidence-based mainstream gender in adaptation options. Case studies, trainings and various assessments and guidance were provided to the countries. NAP-Ag also catalyzed enablers for gender responsive adaptation options, thus contributing to improving conditions for planning, increased understanding of tools and methods around uptake of gender-responsive adaptation actions. This resulted in inclusion of gender in planning and budgeting in various countries, but the adaptation options adopted do not expressly address inequities in rights or differential power relations. The uptake of gender mainstreaming was constrained by the varied degree of interest and uptake from country representatives.

127. The programme was well aware that men and women experience climate-related challenges differentially. The programme thus sought to raise this awareness through various means such as developing case studies on gender and adaptation planning in the agricultural sectors (FAO & UNDP 2020) (FAO & UNDP, 2017) and to train stakeholders on mainstreaming gender in NAP-Ag.
128. NAP-Ag influenced integration of gender consideration in planning and budgeting in Nepal. The budget coding is an improved system of tagging the public program budget at activity level to improve the accuracy of climate budgeting. In order to define the level of relevance, rather than a budget bracket, the improved system uses a set of three questions to screen the proposed climate action based on i) vulnerability assessment, ii) beneficiaries – including gender, and iii) contribution to national commitments such as SDGs and NDCs. This coding system was developed by the Ministry of Agriculture and Livestock Development with the technical support from NAP-Ag and approved by the Nepal national government in 2019. More examples are provided above in EQ 2.5a.
129. However, in general, none of the adaptation options expressly address for example how the inequities in rights over resources including land, water, trees, livestock, grazing or fisheries by women will be addressed. For example, some of the adaptation options proposed include crop rotation or using livestock feed supplements. But women do not have equal rights with men to make these decisions because customarily, women do not own productive assets, but often they are the ones who manage these productive assets. At the same time, in spite of women constituting a considerable percent of the non-contractible agricultural labour force in most of the project countries (Empower Women, 2011), in some countries – in particular African – men dominate the majority of decisions related to land use and management. Additionally, in several countries, the security of women’s ownership of land tenure is often very tenuous. Despite the programme’s awareness of the differential impacts of climate change between men and women, the adaptation options did not incorporate strategies to address such differential power relations and inequities of rights.
130. On the other hand, the programme catalysed several of the enablers for gender responsive adaptation options. These contributed to improving the conditions for planning, increased understanding of tools and methods around uptake of gender-responsive adaptation actions through various approaches which included raising awareness among key stakeholders, fostering dialogue between national gender experts with climate planners and improving gender mainstreaming skills. However, the uptake of gender mainstreaming in all countries was constrained by the varied degree of interest in each country. While some countries had high

interest and willingness, in others cultural and political concerns, particularly common in the agricultural sector, generated reluctance in adoption of gender mainstreaming.

131. The Uganda NAP-Ag recognizes that the Uganda National Land Policy 2013 vests land in the citizens of Uganda and that the policy seeks to address disparities in ownership, access to and control of land by vulnerable groups. But their proposed actions in crop production i) do not address the element of land ownership by women; ii) proposes cash crops such as tea and cocoa whose decision for production is not made by women who as earlier elucidated, form the bulk of the labour force; and iii) propose appropriate climate smart agricultural technologies but not gender responsive climate smart agricultural technologies that specifically reduce time and labour for women, or are accessible and affordable by both men and women.

EQ 2.6. To what extent was the programme able to build on existing/ongoing countries' conditions (resources, plans, capacities, norms, processes) to achieve the outcomes?

Finding 16. The core-strategy of the programme included leveraging on ongoing national initiatives to maximize the existing synergies and gain traction on achievements of its results. Documenting lessons learned and best practices from previous adaptation planning activities allowed the agriculture NAP development process to be informed by past experiences and proven methodologies.

132. Building on existing institutional structures of the governments of the programme countries is at the essence of the NAP-Ag design. As explained in this report, the programme leveraged on existing and ongoing human and technical resources, resources, plans, policies, programmes and budgeting practices, and followed each country's government norms and processes.
133. Apart from the programme management units (PMU) in each country, which were dissolved once the programme ended, no new structures were created by the programme at national or sub-national levels. Existing policy documents guided adaptation and mitigation efforts in target countries that the programme was able to ride on. In addition, the programme contributed in scaling up various other interventions.
134. Documenting lessons learned and best practices allowed the agriculture NAP development process to be informed by past experiences/proven methodologies in adaptation planning. The programme also leveraged UNDP/FAO's experiences in developing and LDCs by working in conjunction with and extrapolating insights from programmes such as the Ecosystem Based Adaptation Programme for Mountain Ecosystems, the Global Climate Change Alliance (GCCA) and the NAP Global Support Programmes (NAP GSP), a UNDP and UNEP joint initiative supporting more than 40 of the most vulnerable (developing) countries to advance their CCA. This helped NAP-Ag especially in identification of appropriate adaptation actions and addressing the issues.

EQ 2.7. Which and to what extent other factors, actors or initiatives have contributed or hindered the achievement of the Programme's results?

Finding 17. In addition to successful strategies, which include partnerships and country-driven implementation, the programme benefited from enabling environment and good timing related with NAP process established by the COP 23 to LDCs, and existing countries' capacities. Different implementation paces in partner countries and issues such bureaucracy sometimes generated delays and other challenges, but in general that did not have significant repercussion in the implementation.

135. The NAP-Ag benefited of various successful strategies that are extensively explored in other sections of this report, such as i) the partnership between UNDP and FAO; ii) the country-driven approach; iii) the partnerships with ministries of agriculture, finance and planning; iv) the multi-stakeholder partnerships within each country; v) building on existing plans, structures, processes and policies; vi) support provided by global team; vii) promotion of sharing and

learning among countries; viii) building on evidence and science-driven processes; and ix) engaging multi-sectoral teams.

136. The process to formulate and implement NAPs was established by the COP¹⁶ in 2017 to enable LDCs¹⁷ to identify medium to long term adaptation needs and develop strategies and programs to address those needs. Hence, the development of the NAPs was not alien to the stakeholders at country level. The main distinction was the nuance of this being in the agriculture sector. The environment, thus, was enabling for the development of the NAP-Ag, as well as the timing. This is a key-element for initiatives such as NAP-Ag, that aim to influence plans and policies. At the same time, the programme has been able to – to the extent possible - navigate and adapt to the challenges of complex environments, as it is particularly explored in this report in the analysis of efficiency.
137. NAP-Ag benefited and was able to build on solid existing capacities in its key-focus areas in most of the countries (the Philippines, Uruguay, Guatemala, Colombia, Viet Nam, Nepal, Kenya, Zambia, Thailand and Uganda). These included not only capacities in government, but also in other sectors, such as CSOs, universities and research centres. This was not true, however, for The Gambia, where the execution of the work plan (including writing of the terminal report) was delayed due to the unavailability of local capacities to conduct and complete many of the activities. For example, the terminal report had to be completed by the global team with inputs from the Country Offices as the Project Coordinator had started a new position.
138. As expected, differences among countries meant that not all ministries were able to move at the same pace as the others, and the programme did not have the scope of influence to accelerate the tasks that were required to be undertaken in respective ministries. This caused a delay in completing some of the processes on time. For example, in Thailand and Viet Nam, it took some time to incorporate government's need in the programme and modify activities as per their priorities and needs, while in Nepal, due to a new federal structure, there was confusion on the working modality, which delayed deployment of staffs at the sub-national level and hence delayed programme implementation. The delay was also associated with the delay of the start of the GCF NAP project. In the Philippines, bureaucratic arrangements for disbursement delayed activities of one of the key implementing partners, PAGASA. In Nepal, Thailand and Philippines additional time was taken during implementation to prepare detailed inception reports that went beyond just workshop reports and included specific institutional and technical analysis. As Ministries of Agriculture are not the focal point agencies for the NAP process, this led to some delays regarding alignment and buy-in from NAP leads.
139. The programme management, was, most of the time, able to catalyse and make use of contextual factors and actors present in the countries where it was implemented, and to adapt to most changes and challenges along the way. These points are better explored in Efficiency chapter of this report.

¹⁶ Decision 1/CP.16, paragraph 15.

¹⁷ The NAP process was initially was established for LDCs. Other developing countries were invited to design and implement NAPs accordingly. The Paris Agreement now states that all countries should develop national adaptation planning processes.

3.3 Contribution to global climate change adaptation efforts

EQ 3. How and to what extent did the programme contribute to supporting CCA planning efforts at national, regional and global (UNFCCC) processes level?

EQ 3.1. To what extent did the programme contribute to supporting countries to translate UNFCCC NAP related objectives to the country level, in particular with regards to integrating agriculture?

Finding 18. The programme contributed in translating UNFCCC NAP related objectives to the country level. The programme was a catalyst toward enabling countries advance in their respective NAP processes by supporting them to develop supplementary documents because not all countries were at the same stage of development. It also fostered cooperation of countries at the global initiatives. Evidence that supports this finding can be found under Evaluation Questions 1 and 3.

EQ 3.2. To what extent did the programme contribute to facilitating country experience sharing at the global level in UNFCCC processes?

Finding 19. The programme has been instrumental in contributing to the global body of knowledge regarding formulation and implementation of NAPs. Supporting countries' participation in fora such as COPs, LEG, NAP-expo and KJWA provided opportunities to share country experience at global, regional and national levels. NAP-Ag also helped improve reporting to UNFCCC on progress of NAP formulation and implementation.

140. NAP-Ag periodically reported to the UNFCCC on the progress of formulation and implementation of NAPs by LDCs since the beginning of project implementation in 2015. In the reporting, the programme highlighted the progress made, results achieved and lessons learned. Evidence of this was captured in UNFCCC reports, such as the report of the 36th meeting of LDCs Expert Group.
141. The programme supported 30 International and regional and 11 national platforms to utilise them for dialogues between countries, including LEG35 in Kiribati, LEG36 in Nairobi, LEG37 in Madagascar, NAP Expo in Sangdo, Korea in April 2019, COPs 22, 23, 24 and 25, KJWA meetings, global capacity development workshops, Advancing National Adaptation Plans post Paris (COP 21), LEG Regional training workshop on NAPs for Anglophone Africa, Pre SBSTA/SBI48 AGN Agriculture Strategy meeting, UNFCCC SABASTA/SBI 48 and the Sixth Asia-Pacific Climate Change Adaptation Forum (APAN). Online events were also organized.
142. NAP-Ag co-organised three sessions on country approaches in formulating NAPs and experiences in assessing GCF readiness support for the formulation of NAPs with the NAP Global Support Programme (NAP GSP). It also contributed to the organization of side events at COPs, such as the Madrid COP 25 with Ikea on land use and at the NDC Partnership Pavilion on Agriculture and Land Use Sectors in Latin American and the Caribbean NDCs. The purpose of such side events was to support country representatives in sharing their experience.
143. Target countries supported their stakeholders to participate in international fora. Sharing of results of the programme through the web-platform, reports, NAP Expos, and CSA/GACSA workshops benefited countries like Philippines, Nepal, and Uganda in developing NAP-Ag roadmaps and M&E frameworks. Other country-specific highlights are:
 - i. Uganda. The programme supported Members of the National Assembly and the youth to participate in COP 22. Upon return, they disseminated the lessons learned at sub-national level to district officers which included the utility of youth participation in climate action. While at COP 22, the youth lobbied to host the African climate change conference for youth. Their lobbying was successful and Uganda hosted the conference in 2017.

- ii. Kenya. The programme supported staff from the Ministry of Agriculture to participate in the COPs, NAP Expos, SBSTA and KJWA events. This enabled peer to peer learning and knowledge exchange.
- iii. Uruguay was able to participate and share experience during NAP Expo, Regional NAP Expo, and UNFCCC. As a result, during COP 25 in December 2019, Uruguay was able to join a regional platform for climate action in Latin America and the Caribbean (Plataforma Lation americana de Accion Climatica - PLACA).
- iv. In Thailand, Viet Nam and the Philippines, the programme supported staff from the Ministry of Agriculture and Rural Development to participate in the COP and KJWA. The countries were also able to prepare a submission to UNFCCC on issues related to agriculture flagging the importance of National Adaptation Plans for countries adaptation commitments and its alignment with the NDC adaptation ambition.

EQ 3.3. To what extent did the programme results link to relevant SDG indicators/targets?

Finding 20. The programme results contribute directly to the SDG 13 (Climate Action) goal and specific targets and to the implementation of the Paris Agreement. It also contributes directly to the implementation of the 2017 FAO Climate Change Strategy and has relevance for several signature solutions outlined in UNDP's Strategic Plan (2018–2021). It contributes indirectly to other SDGs, in particular SDG 5 (gender equality) and SDG 2 (zero hunger).

144. NAP-Ag was coherent and directly contributes to the SDG13 goal. The programme goal was to foster climate change concerns integration into country strategies and policies, in line with target (SDG 13.1, 13.2, 13.3 and 13.b) of the SDG 13 goal on climate action (UNDP, n.d.).
145. The SDG 13 goal on climate action also seeks to promote mechanisms for capacity building in the area of climate change management, including the inclusion of women and youth in the process. This is coherent with the programme implementation process that sought to involve women in the gender mainstreaming trainings, as well as the encouragement of inclusion of gender sensitive policies. The programme's trainings, capacity strengthening activities, development of integrated road maps for NAPs and knowledge products, and improvement of evidence based for NAPs also contribute to the SDG 13 through technical support for the development of sustainable and climate-resilient agriculture.
146. NAP-Ag has directly contributed to the implementation of the 2017 FAO Climate Change Strategy. NAP-Ag outcomes 1 and 2 directly support the strategy's outcome 1 ("Enhancing institutional and technical capacities of Member States"). NAP-Ag outcome 1 contributed in integrating climate change concerns in national and sectoral planning and budgeting. To enhance technical capacity, programme trained personnel from national government, subnational government and other relevant institutions in vulnerability assessment, CBA, M&E and evidence-based planning and budgeting. These skills helped to identify gender adaptation actions appropriate economically and ecologically for the national and subnational development frameworks. To institutionalize the adaptation, it contributed formulation of national and subnational planning and budgeting roadmaps to guide the process of integrating climate change concerns affecting livelihood and economy (NAP-Ag output 2). This also contributed to increase budget allocation for climate change adaptations.
147. The outcomes 3 and 4 of NAP-Ag supports FAO Strategy outcome 2 ("To improve integration of food security, agriculture, forestry and fisheries within the international climate agenda"). The Outcome 3 of NAP-Ag that supports establishment of knowledge base for encouraging evidence-based planning and budgeting, contributed to conduct case studies on adaptation options, climate change impacts and gender issues related to CCA. For the benefit of wide audience

(including internal climate agenda), NAP-Ag programme also supported in dissemination of lessons learned (outcome 4). To contribute in addressing climate change issues at global level, it supported participation for sharing lesson at global and regional levels (outcome 4).

148. The NAP-Ag programme contributed to UNDP's global output on low emission and climate resilient objectives addressed in national, sub-national and sectoral development plans and policies by strengthening country capacity to implement NDCs as part of national development plans and policies. It also had relevance for several signature solutions outlined in UNDP's Strategic Plan (2018–2021), particularly on i) strengthening governance by enhancing institutional capacities, ii) building resilience through disaster risk reduction and CCA; iii) promoting nature-based solutions for a sustainable planet; and iv) strengthening gender equality.
149. Twenty-two gender sensitive adaptation action areas prioritized by the agriculture sectors and commenced implementation in the context of existing national and subnational development frameworks contributes to gender equality of SDG 5. Additionally, promotion of gender focused adaptation practices, the strengthening of institutions and piloting of adaptation options in agriculture contributes to zero hunger (SDG 2) and to address poverty (SDG 1). Once household economy improves, it is also possible to afford health services (SDG 3), nutritious food and also children's education (SDG 4).
150. Incorporation of practices and risk management systems by agricultural producers to reduce vulnerability of the production systems contributes in achieving SDGs 1, 2, 3 and 8. On the other hand, the conservation and restoration of agro-ecosystems and the goods and services they provide by production systems to improve their adaptation contributes above all to the achievement of SDGs 12, 13, 14 and 15.

3.4 Efficiency and coordination

EQ 4. To what extent were management arrangements appropriate to deliver the programme efficiently?

EQ 4.1. To what extent were the management arrangements and governance structure of the programme adapted to deliver the intended results in an efficient manner?

Finding 21. The concept of NAP-Ag was that of a collaborative initiative. To this extent, the programme i) had a common communication strategy, results framework, budget and work plan that delineated the lead partner for each respective result, activity and the commensurate resources; ii) joint oversight structure whose membership constituted of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, UNDP and FAO; and iii) resources were jointly mobilized through a common ProDoc. The management arrangement and governance structure of the programme was well planned, with clear division of responsibilities between organizations.

151. The programme was implemented under UNDP's Direct Implementation Modality (DIM) with FAO as a responsible party. A PMU was based at FAO Headquarters in Rome and one at the UNDP Regional Hub in Bangkok. The two agencies provided technical assistance to the countries through the backstopping teams composed of one FAO staff and one UNDP staff for each region (Africa, Asia and Latin America). The global team (FAO Headquarters, UNDP Regional Hub and regional backstopping teams), contributed in recruitment of programme staff and consultants, travel facilitation, sub-contracting and organisation of regional and national workshops. Monthly global calls were conducted with the PMUs and global technical experts to discuss technical and operational progress, activities, lessons learned, etc.

152. The ProDoc outlined a clear division of labour in the stakeholder involvement plan,¹⁸ establishing responsibilities to lead the delivery of specific programmes outputs for UNDP¹⁹ and FAO.²⁰ Being a collaborative program, responsibility for the achievement of the outcomes was designed as a collective effort of both FAO and UNDP.
153. The NAP-Ag had a communication strategy as well as knowledge management strategy throughout the programme life. A media kit was also developed and as part of the communication outreach of the programme for inter-active good practice sharing, FAO and UNDP both established a web space for the NAP-Ag programme where programme progresses were updated and where knowledge products are available for download.²¹
154. The programme board (PB) was formed by representatives from UNDP, FAO and the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety and provided strategic decisions on policies, high-level strategic guidance and direction to the programme, major revision in programme strategy and implementation approach. The PB reviewed progress of programme implementation every year and approved annual work plan. It also assured that the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety resources were committed exclusively to activities that relate to the achievement of approved programme objective and outcomes and were in line with the approved annual work plans.
155. At the country level, the programme was led by a National Coordinator hired by FAO and supported by technical specialist hired by UNDP, and key decisions were made by a steering committee led by senior officers from the two focal ministries (environment and agriculture). Effective coordination was maintained through establishing a national coordination mechanism. In different countries, the NAP processes were structured as per the national circumstances, with priority to national interest and needs. Technical experts such as the gender and knowledge management officers at the global pool were efficiently utilized on as needed basis from the common pool of global resources.
156. There was a good working relationship with government officials, as further explained. In some target countries, the national programme coordinators were former government officials who worked in the respective partner ministries. An example of this was in Zambia. This aided the mobilization of ministry staff for example in securing their involvement in the programme interventions such as developing the integration roadmap process. In addition, in some instances, programme staff transitioned from one partner agency to another. An example was the case of Kenya where the climate change focal officer in UNDP transitioned to FAO as the programme coordinator. This enabled the programme to navigate through the administrative procedures due to their knowledge of each organization's respective procedures.
157. In most countries, including all in Africa, the programme was anchored under the Ministry of Agriculture as FAO's traditional partner, which worked well. However, in Zambia, it was felt that this arrangement limited the programme's ability to influence and coordinate the effective integration of climate change action concerns in national work plans and budgeting processes. Interviewed stakeholders informed that the country felt that the programme was too ambitious to assume that it had the required influence to integrate CCA concerns in work plans and budgets given its scope, timeframe and resources available to involve key critical personnel from the

¹⁸ ProDoc, p. 30.

¹⁹ Outputs 1.1; 1.3; 2.1; 2.2; 3.1; 4.2.

²⁰ Outputs 1.2; 2.3; 3.2; 3.3; 4.1; 4.3.

²¹ FAO NAP-Ag webpage: <http://www.fao.org/in-action/naps/en/>

Ministries of Finance, National Development, Planning, Policy and Agriculture. It would have been of a higher utility to anchor the programme under the Ministries of Finance and National Development Planning, under whose mandate the national work plans and budgeting processes fall.

EQ 4.2. How/how much have the partnerships built contributed to the results?

Finding 22. The programme effectively leveraged strategic partnership typologies that provided valuable contributions from partners to holistically address climate change concerns in the agriculture sector. It involved various ministries, semi-autonomous organizations, research institutes, universities, civil society organizations, farmer's and international organizations. Government was also involved directly in implementation. This increases relevance of the intervention, ownership and sustainability of results.

158. The programme was alive to the fact that climate change concerns in agriculture cannot be addressed in isolation of other related sectors. Building effective partnerships was one of the core-implementation strategies of NAP-Ag. In this regard, the programme convened stakeholders from other associated sectors which included i) Ministries of Finance, Planning, Economic Development, Environment, Lands, Forestry and Water; ii) academia and research organizations; iii) semiautonomous organizations such as the coffee and dairy development authorities in Uganda; iv) civil society; vi) farmers' organizations; and vii) international organizations. In all countries, representatives from these sectors formed the national steering committees (SCs) which played the role of programme oversight in steering its implementation; and in some cases, task forces which led the technical development of the NAP-Ag (more details on the SCs can be seen in E.Q. 4.3.).
159. In Kenya, strategic partnerships with international research organizations such as the International Center for Tropical Agriculture (CIAT) and the International Center for Research in Agroforestry (ICRAF) were nurtured. This partnership was highly effective and enabled pooling of technical and financial resources for greater impact. Through this collaboration, 80 sub-national officers in the Ministry of Agriculture were trained and certified on CSA and community based natural resource management.
160. In the Philippines, the programme has partnered with governmental and non-governmental institutions specialized in climate and agriculture to develop trainings, studies and interventions. Rice Watch Action Network (RWAN), a civil society organization with a long history of engagement at the local level, conducted pilot seminar-workshops on quality assurance reviews of Local Climate Change Action Plans (LCCAP) of local government units. Most of the stakeholders in the Philippines describe that the partnership with NAP-Ag allowed for true collaboration and ownership, resulting in achievements in spite of much smaller budget when compared to other initiatives.
161. In some target-countries, government officers spearheaded the implementation of the program activities and took co-responsibility for delivery of the programme outputs. In most of the countries, some of the supporting knowledge products developed by the programme were co-authored by the government partners (Kenya, Thailand, Nepal, Viet Nam, Colombia, Guatemala and the Philippines). Tools for use by the programme such as the budget code to track climate change investments in the agriculture sector were developed by government staff in Nepal. The government officers also spearheaded the integration of CCA concerns in work plans and budgets in the Ministry of Agriculture, e.g. in Zambia. Engaging the government directly was a strategic approach especially given that this programme was largely undertaking upstream activities which cannot be successfully accomplished (neither further sustained) without the direct involvement of the government officials.

162. Ultimately, the engagement with partners in these different typologies raised the profile of NAP-Ag in the various sectors, increased relevance of intervention (because founded in existing and local knowledge, capacities and needs), promoted ownership and increased the likelihood of continuation of the programme results.

EQ 4.3. To what extent has the management been able to adapt to changing conditions to improve programme implementation?

Finding 23. Implementation was overall effective, and management was able to navigate and adapt to challenges in each country, which included delays, staff turnover and different implementation paces at country level. The programme management worked in close coordination with the government counterparts and support was provided for countries by regional and global teams. Multi-stakeholder steering committees helped to address issues faced by the programme at country level.

163. The PMUs in each country coordinated with the government counterparts at national and sub-national level as well as with the local governments to implement the programme. This made implementation process generally smooth and effectively addressed the obstacles encountered while implementing the activities.
164. The NAP process progressed at different pace in each of the countries, which also affected the implementation of NAP-Ag as a global programme, with reasons differing among the countries. These included late start, turn-over of team members (e.g., Nepal, the Philippines), confusion among the team members about the programme, need to work with government to address their priorities, extra funding needed to complete activities, etc. The programme teams analysed the reasons of slow NAP processes and made necessary adjustments. In addition, the teams worked on the country work-plans to contribute to emerging priorities in the countries related to climate strategies and plans.
165. National capacity on adaptation planning was uneven among programme countries. To address these problems, arrangements were made to provide technical support from the two dedicated focal points (technical specialists) for Asia, Africa and Latin America from both UNDP and FAO's regional offices and global offices. The level of support from the global team was also increased; for this, it has retained experts on gender, impact evaluation, M&E, economic of adaptation and CBA for long term. They provided specialised services and mentored the country teams both remotely and during in country missions.
166. Through the iterative interaction of the global back stoppers and the country teams, country work-plans were revised twice a year to ensure the activities were well-linked to the national planning processes and across all stakeholders involved in order to meet specific, evolving country needs.
167. The programme in each target country was coordinated through a multi-sectoral platform that formed the SC (in some cases called also a task force). This committee was led by high-level personnel from the Ministry of Agriculture and met regularly. The SC was responsible for ensuring that the programme was on track by monitoring the agreed work plan. The SC also provided guidance to address issues encountered by the programme. The implementation and relevance of the SC was not uniform in all countries though.

EQ 4.4. Were the programme monitoring and the MTR used/useful to make timely decisions and foster learning during programme implementation? Was the M&E system effective in informing and improving programme implementation and efficacy?

Finding 24. The NAP-Ag M&E framework established regular monitoring at the programme level, regional and country levels to provide immediate feedback to improve programme implementation; some countries had workplans but not specific M&E frameworks. The M&E and support provided was effective and relevant for decision-making and learning. Some MTR recommendations helped to address issues and improve implementation but some were not relevant, partially relevant or not implemented due limitation of time and/or fund.

168. In addition to the overall Results Framework, a workplan and M&E framework (not result framework) were developed for some countries (e.g. the Philippines, Nepal) covering stages and milestones of the implementation phases.
169. All countries were requested to carry out a baseline and report progress towards the targets in the programme result framework. While programme components, indicators and targets were the same, country's work plans customized activities and expected results under each component on the basis of their national priorities and adaptation planning processes, and created the narrative to illustrate how the country results would have contributed to the achievement of the common targets. The workplan also included roles and responsibilities of different stakeholders. African countries, however, did not have a specific M&E framework.
170. The programme M&E plan was developed with detailed overview of monitoring, evaluation and reporting requirements and budgets. Progress was monitored through quarterly progress reports and feedback provided. Risk and assumptions, issues, lessons learned, and progress were reviewed, updated and monitored through ATLAS (UNDP system).
171. A dedicated M&E consultant kept track of achievements and contributions from each target country and prepared annual interim reports, and biannual project progress reports after analysing each country's quality assessment report and establishing personal communication with each country coordinator. The reports were prepared to monitor progress since programme start and, in particular, for the previous reporting period. The reports included progress made, the programme outputs delivered, lessons learned/good practices, annual work plans and other expenditure reports, risk and adaptive management and quarterly progress reports.
172. The countries that developed the M&E systems (e.g. Guatemala, Kenya, Uganda), did so to advance on adaptation reporting under the UNFCCC for the sector or as contribution to the overall reporting (which would be an indicator for institutional mainstreaming) but not to report under the programme.
173. Periodic site visits by Global Team back stoppers were scheduled for first-hand programme progress information. Support from Global Team and regional offices to countries were reported as very good and timely (in particular in Asia) in response to quarterly reports. A field visit report/BTOR was prepared by country offices and circulated to the programme team and Project Board members. These reporting arrangements benefited the programme to address the problems raised during implementation.
174. The programme underwent an MTR in June–Nov 2017. The review provided recommendations intended to enable more efficient implementation and stronger adaptive management and to enrich learning, focused in areas such as program management, M&E, and knowledge management. As per recommendation of MTR, in some countries the programme worked to strengthen the relationship between Government agency, civil society and producers/private

sectors at the local level to increase their partnership (e.g. Guatemala). Some countries disagreed with few recommendations as they said they were not applicable or not relevant and some partly relevant.

175. The relevant recommendations were adopted by the countries for improvements (also mentioned in the country response), but the adoption was not uniform. For example, the MTR recommended that each country gather and document, as a stocktaking exercise, the tested CCA practices in the different agricultural sectors, including those that were tailored to women producers, since these practices would be among the key elements to incorporate in CCA Plans and the NAP and should be the focus of any exercises to assess adaptation options of impact evaluation or M&E. There is no evidence that this MTR recommendation has been implemented in the African countries, in spite of having been reported as partially and fully implemented in, respectively, Uganda and Kenya.

EQ 4.5. Is the M&E framework of the program designed to collect sex-disaggregated data and measure gender-specific changes resulting from the programme?

Finding 25. The nature of some of the indicators in the results framework renders themselves the ability to collect sex disaggregated data. The M&E framework has provision of collecting sex-disaggregated data, which helps measuring gender-specific changes resulting from the programme. The M&E trainings included topics on measuring indicators of gender-specific changes from the programme.

176. The M&E framework of the program was designed to collect sex-disaggregated data to measure gender-specific changes from the programs. The Outcome 1 on capacity enhancement, required gender equity in capacity enhancement activities. Indicator 2.1 stressed consideration of gender in national and sub-national planning and budgeting roadmaps formulations to guide the process of integrating climate change concerns affecting livelihoods into the agriculture sectors. The M&E and impact evaluation frameworks of Outcome 3 says that for adaptation in the agriculture sector should include the identification of differential needs and adaptation options for men and women and the systematic integration of gender-sensitive indicators or sex-disaggregated data into data collection and analysis systems of the government. Likewise, indicator 4.2 included women's advocacy organisations for the activities of communicating best practices and lessons learned to share at national and international platforms. These indicators may help to analyse or measure future gender-specific changes resulting from the programme.
177. The technical staff and public service officers supporting agriculture-based livelihood adaptation in relevant ministries were trained in national adaptation planning and budgeting and measuring gender disaggregated indicators; trainings also included gender specific adaptation actions. The provision of measuring gender specific indicators in adaptation planning and budgeting and result of adaptation actions helps to measure gender specific changes of the program. However, in African countries, there was no evidence of gender concerns integrated into the adaptation options. Hence it would not be possible to measure gender responsive changes resulting from the programme in those countries.
178. One example of incorporation of gender approach in planning instruments is from Colombia where gender data (in the diagnosis phase) and an adaptation measure related to gender equality have been incorporated in the PIGCC. These are notable advances in the adaptation planning processes. Also, from the results of the workshop supported by NAP-Ag, guidelines for incorporating gender and CCA in the agricultural sector (Gender Blog) were developed. The Gender Blog includes eight steps and has been validated in the field by the FAO Gender team in Colombia and the Rural Women Office of the Ministry of Agriculture. The Gender Blog has been adopted and implemented by the sector in other programmes such as the Bio-carbon Fund, a

programme proposal to present to the GCF that is being formulated with support from the Corporación Andina de Fomento (CAF) and in the La Mojana programme financed by the GCF and implemented by UNDP.

3.5 Sustainability

EQ 5. To what extent are the results achieved by the programme sustainable?

EQ 5.1. What are the prospects for the country partners to sustain the results achieved after the programme completion when the support from the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety and NAP-Ag ends?

Finding 26. NAP-Ag ensured that the prerequisite conditions for viability of continuation of the programme are in place, some of which cannot be retracted, and when put in practice, they can only continue to be enhanced and strengthened extensively. These include i) the capacities, knowledge and skills transferred to the national stakeholders; ii) institutional strengthening and coordination; iii) the assimilation of programme outputs into national overarching initiatives and integration of the NAPs into statutory processes; iv) the programme's successive initiatives; and v) resource mobilization achievements of various types.

179. The programme applied capacity building as a conceptual approach to individual development by focusing on understanding the barriers that inhibit the national stakeholders to apply and implement CCA options. To this end, NAP-Ag identified and trained government officers and technical staffs from the government who continue working after programme ends, on various aspects along the CCA spectrum. Trainings included climate financing options, adaptation CBA, mainstreaming adaptation options into planning and budgeting, and socioeconomic scenarios for climate change planning as earlier detailed (see Effectiveness section for more details).
180. The programme also built the capacities of associated institutions to strengthen the systems and processes that can effectively support implementation of CCA options. These included, among others, climate data models to determine entry points and gaps for integrating CCA into agriculture sector planning, M&E frameworks), experimental designs to measure adaptation options, and mainstreaming gender to ensure gender responsive CCA options. For example, in Kenya it fostered CCA in strategic planning, while in Guatemala, a M&E and reporting system was adopted to track progress on CCA.
181. Promoting inter institutional coordination among sectors (irrigation, crop, livestock, fisheries, etc.) within the Ministry of Agriculture (main partner in each country), and between ministries (finance, environment, physical development etc.), national and sub-national level institutions, government and private sector and farmers etc. highlights the benefits of continuity of cooperation and team spirit.
182. To consolidate the gains made by the programme, some countries have incorporated it into national overarching initiatives and have been integrated in statutory processes, as previously highlighted in this report.
183. NAP-Ag also catalysed the development of subsequent programmes to upscale and roll out the interventions proposed and extension of technical assistance in related ongoing initiatives such as NDCs. FAO Uganda's Technical Cooperation Programme (TCP) proposal is currently a pipeline programme that is awaiting financing. Additionally, UNDP Uganda has also utilized the lessons learned from the process of the NAP-Ag developed to write two grant proposals that seek to i) enhance the dissemination of early warning information for farmers for the seasons; and ii) to

enhance promotion of weather-based index insurance for the farmers. These two proposals are also in the pipeline awaiting fund.

184. The programme's partnership not only helped NAP-Ag targets for the programme period, but it also supported countries to develop and submit proposals for GCF fund to continue outcomes of the programme or to upscale lessons. By the end of 2019, five proposals had been approved for funding and these will continue outcomes of the programme. Kenya (USD 3 million) and Uruguay's proposals were approved in 2018 and started their activities in 2019. NAP Readiness proposals in Viet Nam and Thailand were approved in December 2019 and August 2020, respectively.
185. In addition to the GCF funds, NAP-Ag has leveraged additional USD 100 000 in Kenya from United Nations Institute for Training and Research (UNITAR) to strengthen the capacity development component of the programme and it has also supported development of a GCF proposal entitled "Transforming Landscapes and Livelihoods through Agro-Water-Energy Nexus Approach" requesting a grant of USD 40 million. The NAP-Ag further supported development and submission of another proposal for mobilisation of USD 99 000 from FAO's Technical Cooperation Programme Facility (TCPF) to further support the necessary studies for the development of the GCF funding proposal.
186. In Uganda, the programme team is working with the Ministry of Agriculture to allocate resources to the operationalization of the NAP for agricultural sectors under the FAO TCP facility for USD 350 000. Still in Uganda, two other programmes i) proposal to GCF to enhance dissemination of early warning information for farmers and ii) proposal to GEF to enhance promotion of weather-based index insurance for the farmers) are in pipeline. With support from NAP-Ag, the Philippines has drafted two proposals for GCF, one focused on water sector. Due to changes that have occurred in the Department of Agriculture and the Climate Change Commission, the proposals are yet being reviewed and until late 2020 had not been submitted to GCF.
187. Other funding arrangements made by the programme were supporting various activities related to NAP-Ag for the period in between 2018 to 2025. Some of them are: the Climate and Land Hub programme of EUR 0.5 million for 2018; Technical working Group for Agriculture, food security and land use under the NDC partnership of EUR 0.5 million from BMZ for 2018–2020; and Fostering National Adaptation Planning capacities for Food Security and Nutrition from Government of Quebec of USD 5 million for 2018–2021. SCALA, (the Support Programme on Scaling up Climate Ambition on Land Use and Agriculture through NDC and NAPs), funded by the the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of EUR 20,000,000 for 2020–2025 has directly built on the learning from NAP-Ag and is already in its inception phase. FAO developed two full GEF proposals building from the lessons learned from the NAP-Ag programme in Nepal and in the Philippines. These projects will be submitted to the GEF Secretariat in 2021.
188. Country processes leveraged the opportunities presented by the NAP-Ag programme to further advance their objectives. An example is in Gambia, where the programme organized a NAP sensitization forum that convened various stakeholders to dialogue on the NAP-Ag framework and also used this forum to agree on the CCA priorities in the Ministry of Agriculture and its institutional set up that would inform the overall NAP.
189. In the Philippines, two initiatives in fisheries and aquaculture are already making use of capacity and lessons from NAP-Ag: FAO-NORAD global programme 'Supporting member countries implement CCA measures in fisheries and aquaculture' (GCP/GLO/959/NOR) and IKI EUR 150 000

programme 'Fishing for Climate Resilience: Empowering vulnerable, fisheries dependent communities adopt ecosystem-based-adaptation measures to secure food and livelihoods', aimed at increasing the adaptive capacity of vulnerable fisheries-dependent local government units as well as of provincial and national authorities in the to implement EbA measures into community-led fisheries management. In the same country, the Department of Agriculture provided support to PAGASA is a significant contribution to develop their science capacities and also encourage them to leverage existing and additional resources for further improvements of capacities that directly benefit the agriculture and fisheries sectors. Agriculture Ministry of Philippines is going to support for adaptation planning processes for five years.

190. Guatemala declared two years support to strengthen the FENURGUA in its strategic planning with a focus on adaptation in the agriculture sector. NAP-Ag facilitated the mobilization of public funds of GTQ 7 418 156 (USD 966 245) for adaptation through the establishment of two community irrigation programmes. These were promoted as a practice of adaptation to climate change in the agricultural sector, specifically oriented towards reduction in stress of agro-ecological systems (Dry Basin in Guatemala). Moreover, these actions have facilitated further allocation of the Ministry of Agriculture, Livestock and Food's public funding towards the rehabilitation, improvement and expansion of URs (Irrigation Users); the Ministry of Agriculture, Livestock and Food's plan is to continue supporting the irrigation users in this purpose, in order to rehabilitate a total of 19 Urs.
191. NAP-Ag's support to the first regional consultation on the Enhanced Transparency Framework in agriculture and land-use in July 2016, provided the foundations for the regional FAO-GEF Capacity Building Initiative for Transparency programme in Asia, which now encompasses seven countries.

EQ 5.2. Which, how and to what extent contextual factors/actors could threaten the sustainability of the project's results and the further development of such results? (taking into consideration the cross-cutting programming principles of: capacity development, gender equality, environmental and economic sustainability, and inter-institutional ministries coordination).

Finding 27. The turnover of staffs on government and other relevant institutions, lack of financial and technical support to implement the NAP roadmap, lack of funding for piloting M&E indicators and updating data base and diseases like COVID-19 could threaten the sustainability of the programme.

192. The convergence of agriculture for food security, economic livelihood, and sustainable development in LDCs, and the increasing climate change threat, follows that the two, agriculture and climate change, are inextricably interlinked, and need to be holistically addressed for sustainable development. LDCs also double up as the most vulnerable to food insecurity and climate variability. In this regard, the programme serves as foundational in advancing the response to these two existential challenges. There are however, some factors that could jeopardize the gains made by this programme.
193. Addressing climate change concerns requires a concerted effort, and the most effective convenor of this collective action is the government, that can either accelerate traction on requisite policies, planning and budgets, or refocus the national priorities away from agricultural adaptation options. Even if priority does not change, changes in command of Ministries or staffs may take place either due to transfer of government or termination and hiring of new staffs. These may affect the institutional memory and thereby affect the sustainability of outcomes of NAP-Ag. Changes of staffs of ministries following the change in government in Uruguay, Colombia and the Philippines required sensitization of new staffs on the issues related to NAP, climate change adaptation and agriculture. Similarly, changes in administrative structure (e.g. Nepal) may also affect sustainability and may require more follow up programs to update the institutional memory. As of October 2020, integration of indicators in the AFMP was also pending final approval in the

Philippines due to a change in the command of the undersecretary at responsible for the plan and consequent change in vision/ strategy for the plan. All these changes may put at risk approval of plans or continuity of implementation of adaptation planning.

194. In most target countries, the programme was anchored under the Ministry of Agriculture as FAO's traditional partner. However, in Zambia, informants expressed it would have been of a higher utility to anchor the programme under the Ministries of Finance and National Development Planning, under whose mandate the national work plans and budgeting processes fall. Lack of technical and financial support to implement the plans may also affect the sustainability of the programme outcomes in the Philippines. In Guatemala, additional funding would be necessary to implement training plan to build capacity of 1 350 government officials to implement the Strategic Plan for Climate Change 2018–2027 and its actions plans, at a cost of approximately Q 501 655 (USD 65 413), considering that there are activities of a central nature and others to be developed in the territories.
195. Despite the know-how, and existence of institutional instruments, funding for collection and analysis of climate source data is inadequate. Resultantly, countries such as Viet Nam, Guatemala and Thailand may not be sufficiently able to map out scenarios for extreme weather event programmes, or test M&E indicators in order to harmonize them with the national M&E system. This may lead to a lack of data that would inform or strengthen climate adaptation options or policies.
196. The recently emerged COVID-19 global pandemic has had huge devastating effects on all sectors of the world's economies. NAP-Ag is implemented by the Ministry of Agriculture, while planning and budgeting is done by Ministry of Finance. Hence, if the national priorities switch to COVID-19, and to address the financial losses borne by this disease in industrial, commerce and other sectors, this may threaten the sustainability of NAP-Ag outcomes. World Bank predictions for these countries also indicates decrease in economic growth in 2020 (World Bank, 2020). Although there were minimal interruptions occasioned by the onset of COVID-19 in this programme, given that the activities were mainly upstream, and that most countries were winding down their programme activities at the pandemic's onset, the subsequent downstream activities are likely to be impacted as countries like Nepal, Thailand, Viet Nam and Uruguay have reprioritized their resources to combat this disease. In Colombia and the Philippines, this reprioritization has caused delays in finalizing some programme deliverables. Thailand and Viet Nam have climate data and information but institutional challenges in sharing information. The use of evidence in decision-making, absence of multi-faceted evaluation processes in government and cost associated with the data collection and effective M&E could also be issues for sustainability of outcomes.
197. Additionally, most of the NAP-Ag countries had planned to enhance their NDCs for 2020 submission in relation to adaptation and mitigation aspects in agriculture. The programme is also contributing to the Climate Action Enhancement Package requests and UNDPs climate promise initiatives and this will likely be affected by the pandemic. At the same time, a different situation was also observed where the pandemics allowed for NAP-Ag to provide support for the NDCs to more countries by redirecting remaining funds. In the Philippines, NAP-Ag was still active when the pandemics started, and by October 2020 the programme was preparing to conduct a rapid assessment to – among other objectives – gain better understanding of the impact of COVID-19 on the agriculture sector and its linkage to underlying vulnerabilities and map and document emerging adaptation measures during the pandemic, aiming to offer entry points to would support strengthening resilience of the sector and promote green recovery at national and local level.

EQ 5.3. To what extent have national and global stakeholders owned NAP-Ag's processes and progresses? Which factors have contributed to or hindered the countries' capacity to own the NAP-Ag process?

Finding 28. The programme made effort to ensure ownership of the upstream assistance provided, particularly in countries where there were adequate institutional capacities. The dynamics of power and relationships, and the extent to which the programme sought to respond, influence and operate, evolved over time from participant to ownership. NAP-Ag did this by responding to countries' needs, thus creating a strong reciprocal relationship, engaging local stakeholders in implementation of some interventions; cultivating density and diversity of relationships and collaboration between partners; and by developing prerequisite conditions for continued financing.

198. Given that the programme was country-driven, the implementation responded to the respective country's needs. In this regard, it created a strong reciprocal relationship with the government and other partners where mutual respect, responsiveness and trust were evidently demonstrable. This included, for example, seconding of Ministry staff to work on the programme as FAO contractors and co-authoring of multiple programme's knowledge products.
199. The programme's countries-based staff and partners were able to lead identification of challenges and opportunities, set priorities and play a central role in production of many of the programme's knowledge products (such as the case studies), of several country-level studies and assessments to support trainings, to develop indicators and roadmaps, and knowledge sharing at country level and global forums, which was spearheaded by the local stakeholders.
200. In addition, the programme also supported countries to fulfil their assigned works (e.g. work outlined by LEG, implementation of Paris Agreement - Article 7, NAP technical working groups at UNFCCC) and fulfil commitments at global forums (Cancun Adaptation Framework 2010). It also contributed to various other discussions in COPs and other climate forums so global stakeholders also own NAP-Ag's processes and progresses.
201. The diversity and density of relationships and collaborations between the programme and other partners was well cultivated. The programme was connected to local resources, knowledge and expertise that fostered increased collaboration and cohesion among other partners. Many collaborations were forged with diverse partners particularly in the development of the NAP-Ag roadmap, ranging from the public sector, NGOs, community-based organizations and CSOs, and academic and research institutions. This connectivity enhanced the coherence between local and national planning processes, while enhancing coordination between ancillary line ministries and departments. In Thailand, for example, gender dimension was relatively new to the Ministry of Agriculture and Cooperatives and to the climate change debate in the country. Framing for social inclusion was established under the official mandates to incorporate gender as part of climate adaptation planning; this was initiated by the government with the support from the programme, which has increased ownership.
202. As earlier elucidated, the programme had ensured the prerequisite conditions for continued financing. However, there was still high reliance on external funding, which could ultimately weaken the programme's resilience if resources from aid institutions decline or are reprioritized.

3.6 Progress towards impact

EQ 6. To what extent has the NAP-Ag programme contributed to the overall goal of “climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes”?

Finding 29. The programme created the momentum towards impact by strengthening the foundations upon which the capacities and agency in CCA options are connected for their effective identification, analysis, formulation and implementation. While the likelihood of contribution to future impact can be inferred from the results achieved, it is too soon to measure impact.

203. NAP-Ag planned to achieve its objective through four intermediate outcomes. Considering the lack of adaptive capacities in the target developing and LDC countries, it is possible to say that the programme’s outcomes, outputs and interventions were highly relevant and instrumental to contribute to the long-term impact.

204. In light of its overall achievements, it can be deduced that NAP-Ag is likely to continue positively influencing further results. However, considering the complexity of addressing climate concerns by a single programme, and in light of the length of programme implementation, the likelihood of contribution by the programme can only be inferred rather than be explicitly stated.

EQ 6.1. Have any verifiable improvements taken place in agro-ecological status?

EQ 6.2. Has any verifiable stress reduction taken place on agro-ecological system?

EQ 6.3. Are there links between improvement/stress reduction and programmes outputs and outcomes?

Finding 30. The agriculture sector adaptation plans developed by the programme included measures to reduce the agro-ecological stress; thus it is expected that, when recommended actions or suitable adaptation options are implemented, reduction in the agro-ecological stress could result. Irrigation, food production and other activities would become more resilient, ultimately leading to positive improvements to reduce the stress of agro-ecological system.

205. As earlier reported, the programme contributed to the formulation of NAPs for the agriculture sectors. This also helped in policy improvement and prioritisation of actions for interventions for sub-sectors within agriculture (irrigation, fisheries, livestock, horticulture etc.) Climate change risk and vulnerability assessments in the agro-ecological zones using IPCC AR5 methodology, and appraisal of CCA measures in agriculture sector were also carried out. The risk information helped to recommend appropriate interventions in agriculture, livestock, forests and water management in the programme countries.

206. NAP-Ag, in general, did not directly implement programmes in the field, but it was designed to enhance capacity of the agriculture sector institutions and, thereby, influence policy formulation, programming and budgeting. However, in Colombia, based on previous work of UNDP, an agroforestry cocoa pilot system was implemented in the Uribe Municipality, and involved an expert company, "Mariana Cacao", in supporting former combatants on the cultivation of cocoa varieties that are more resilient to drought and intense rainy seasons. This lays the foundation for – if scale-up takes place – potential stress reduction in agro-ecological systems.

207. The CBA done help to scrutinise adaptation actions that are cost effective and also suitable for the local agro-ecological situations. Such adaptation activities, once implemented, have the potential to impact in the agro-ecological situations, stress reduction and also improve livelihood of the farmers. However, it is too early to assess the change.

208. Risk avoidance in planning and policy formulation could also be considered as progress towards stress reduction. One example is that the programme activities influenced adaptation program prioritisation for the Agriculture Sector Strategic Plan (ASSP) (2021-2025) of Uganda, which provided a basis for addressing climate change in District Development Plans and via that influence livelihood of local communities.
209. In Guatemala, the programme has positively influenced municipalities of Agua Blanca (Jutiapa), San Jose (Escuintla) and San Pedro Pinula (Jalapa), to allocate funds to support irrigation users, which can contribute to food security and also to generation of rural employments.
210. In Nepal, a study conducted by Ministry of Agriculture and Land Development showed positive impact of relevant agriculture sector investments which includes several measures and adaptation options recommended by NAP-Ag. If implemented, those could generate positive impact on local population in different aspects (economy, health etc.).
211. In some countries, some positive impacts have been observed in irrigation and pastureland management practices (e.g. Uganda, Guatemala), but it would be necessary to conduct impact assessments to be able to quantify those changes and establish a causal relationship with the NAP-Ag programme.

EQ 6.4. To what extent are the changes taking place at the scales commensurate to natural system boundaries?

Finding 31. NAP-Ag developed a protocol to estimate losses and damages due to extreme weather events. While this protocol does not prevent impacts in itself, it allows for better estimates that can strengthen public policy design, help design risk transfer tools and disaster preventive development plans.

212. The programme helped to generate information on loss and damage and also cost-benefit of different adaptation actions; the database developed with this information helped in developing disaster preventive development plans. Development of database will also support development of risk transfer programs such as climate index insurance.
213. In addition, NAP-Ag supported plans, policies and programs in the programme countries based on evidence obtained through cost-benefit, vulnerability and loss and damage assessments; these set conditions to influence change in natural systems. Some concrete examples of foundations that can lead to changes in natural systems are:
214. In the Philippines, NAP-Ag contributed in i) institutional improvements on building technical and technological capacities for disaster risk reduction and this made significant progress as a long term CCA; ii) the Department of Agriculture established the Disaster Risk Reduction and Management Operations Center (DRRMO-Op), an operation arm for technical and operational support in the planning, implementation and monitoring of DRRM activities for agriculture and fisheries with support from NAP-Ag; iii) commissioned a study that provided recommendations of a unified framework for the integration of CCA and DRRM into the AFMP process; and iv) the BFAR prepared a CC-DRRM framework to operationalize CCAM and DRRM strategies to ensure proactive attention and enable assistance to the fisheries sector and its stakeholders, which includes technical support and an action centre.
215. In Guatemala, sustainable agriculture programs were developed, such as irrigation and promotion of use of rainwater (rainwater harvest) for crop field in rural areas in the dry season. This helped the Irrigation Users Group in food production during the dry season. Also, natural disaster prevention measures adopted with the help of this initiative helped to increase crop coverage. At the institutional level, NAP-Ag contributed in strengthening public policy for irrigation needed to

improve crop production, gender inclusion and specific support to rural peasant economy. As an indirect consequence of this irrigation project, it helped to enrich ground water table and contributed to aquatic lives including birds, thus contributing to biodiversity conservation and ecosystem management.

216. In summary, in some countries initial positive results were observed, but it will take some time to see the effects of the policies, adaptation options and capacity development activities, and to ascertain the empirical evidence of the correlation and causation in order to determine the quantitative evidence of the changes.

EQ 6.5. Is the projected or potential impact of long-lasting nature?

Finding 32. While it is too early to establish the long-lasting nature of the potential impacts, if the activities identified are continued in the future by each country as per the strategies developed by the programme, the expected impacts could be of a long-lasting nature.

217. The main intention of the NAP-Ag programme was to develop capacities and create an enabling environment which could make adaptation monitoring, planning and budgeting in the agriculture sectors sustainable, and this was achieved by the programme. The programme also strengthened evidence-based planning and budgeting and influenced agriculture sector policies and strategies. These achievements create an environment for integrating climate change concerns in national development planning and budgeting exercise.
218. Once the adaption options developed from these arrangements are included in the countries' National Adaptation Plans, and the plans are implemented, it is expected that the impacts generated from these activities will be of a long-lasting nature. The country-driven and multi-level and multi-stakeholder approach adopted also increases the likelihood of local ownership of the outcome, thus contributing to the sustainability of the outcomes and potential impact, as discussed in sustainability chapter.

4. Conclusions and recommendations

4.1 Conclusions

Conclusion 1. The NAP-Ag programme was highly relevant to the targeted countries. The livelihood and economy of developing and LDCs highly depends on agriculture and this sector is highly vulnerable to the climate change risks. Due to this vulnerability and food security importance, the need of including this sector in the NAP process was recognized at the UNFCCC. However, weak technical and financial capacities make it challenging for some of the countries to incorporate agriculture sector in the NAP process. The programme was also timely, since the NAP process had started or was about to start in the selected countries.

Conclusion 2. The global programme design was adequate to achieve its objectives and flexible enough to address countries' needs and priorities. The programme was designed as seed funding for upstream interventions that were geared towards influencing policies, planning and financing statutory strategies, and institutional strengthening. The programme could have benefited of inclusion of an exploratory or pilot phase to implement innovative downstream activities that would inform policies, strategies, and alternative institutional systems and processes, which are cardinal for effective implementation and sustainability.

Conclusion 3. The objectives, components and outputs in the Results Framework are clear and appropriate to the issues, but some of the indicators were ambitious considering the timeframe (when delayed in some countries) and budget of the programme. The programme objective does describe instrumental changes that can be influenced by the programme, but it does not clearly states the long term transformational changes that will result from it.

Conclusion 4. The country-driven, multi-sector and multi-level approach allowed for ample engagement of stakeholders, contributed in establishing coordination mechanisms and promoted ownership of results. Multiple sector stakeholders involved included line ministries, international NGOs, research institutes, universities, sub-national and local level government and community-based organizations mainstreaming CCA on agriculture at all levels. This approach contributed in establishing coordination mechanism between ministries and other relevant institutions, which also helped to run programme activities smoothly to achieve its outcomes, and promoted ownership of results. More effort needs to be applied in improving the inter-ministerial coordination so as to consolidate the gains made through this programme.

Conclusion 5. NAP-Ag supported countries to accomplish the work outlined by UNFCCC. This includes the Least Developed Countries Expert Group (LEG), the Adaptation Committee of UNFCCC under the Cancun Adaptation Framework in 2010, and contribution to the implementation of Paris agreement (mainly article 7 that encourage engagement in adaptation planning and implementation). The programme also contributed to NAP technical working group at the UNFCCC and to discussions of the LEG for accelerating formulation and implementation of NAPs.

Conclusion 6. In most of the NAP-Ag countries, it is possible to identify changes in policies, plans and budgeting at national and subnational level. The programme enhanced knowledge to integrate adaptation concerns in planning, budgeting and monitoring frameworks of the target countries. Stocktaking exercises reviewed available climate change information and data needed to develop NAP framework and guiding tools. In some countries, programme also facilitated piloting of adaptation options.

Conclusion 7. The programme was able to consolidate a knowledge-base on NAP-Ag. This was done through opportunities for knowledge sharing exchange and interaction between countries, capacity enhancement activities, development of guidelines and monitoring mechanisms with standard indicators,

and information from case studies. Lessons learned from various activities were shared among these countries and also at various global/regional forums for the benefit of the large audience. The programme also produced knowledge products on various aspects of climate change and agriculture.

Conclusion 8. The programme design recognized the significant role that women play in agriculture-focused climate change adaptation and mitigation. The programme ensured, monitored and reported on participation of women in trainings, developed knowledge products, provided capacity building in gender mainstreaming in adaptation, and was able to influence the inclusion of gender aspects adaptation options in many countries. Vulnerability and risk assessments and development of multi-criteria model to screen adaptation activities options focused on gender and vulnerable populations were done. This resulted in inclusion of gender in planning and budgeting in various countries, but the adaptation options adopted do not expressly address inequities in rights or differential power relations. The uptake of gender mainstreaming was more significant in some countries, as it was constrained by the varied degree of interest and uptake from country representatives. There was youth-focused work in Uganda, but overall, the programme did not advance a lot in intentional partnerships with youth as stakeholders, problem solvers or agents of change in their communities, or of explicit reaching of extreme impoverished groups.

Conclusion 9. The management arrangement and governance structure of the programme was well planned with clear division of responsibilities between organizations. The programme timeframe was realistic in most of the countries. Management was able to build upon specific advantages and positioning of FAO and UNDP and upon long lasting relation with government partners which enabled relatively smooth implementation. Strong network from national to sub-national level and technical backstopping from the global team was an advantage to the programme. Countries carried baseline assessments and developed work plans to tailor the work and monitor contribution to the global achievements. The programme had M&E framework with provision of regular monitoring at all levels, and addressed most of the recommendations from the MTR.

Conclusion 10: The programme created environment by strengthening the foundations upon which the capacities and agency in CCA options are harnessed for their effective identification, analysis, formulation, implementation and result impacts. The agriculture sector adaptation plans developed by the programme included measures to reduce the agro-ecological stress; thus it would be expected that, when recommended actions or suitable adaptation options are implemented, reduction in the agro-ecological stress could result. Irrigation, food production and other activities would become more resilient, ultimately leading to positive improvements to reduce the stress of agro-ecological system.

Conclusion 11. The programme built sustainability by strengthening capacity of government officers and permanent, technical staff and by establishing inter institutional coordination among sectors, within and between ministries, national and sub-national level institutions, government and private sector and farmers. Development and approvals of proposals for additional funds to scale up or build upon its outcomes also generate sustainability. In some countries, government announced commitment to allocate budget to carry over the outcomes of the programme, which is also promising. Potential challenges for the sustainability of results include possibility of change of the government's priority, decrease in public finance in agriculture sector, transfer of staffs, lack/limitation of technical/financial support to implement the roadmap, weak inter-institutional coordination (in Philippines), difficulties in harmonizing M&E framework in government's M&E system and possibility of diversion of focus of government to COVID-19.

4.2 Recommendations

Corrective actions for the design, implementation, monitoring and evaluation of the programme

Recommendation 1. To FAO and UNDP. Country specific results frameworks. Though all the countries were requested to carry out a baseline survey and report progress towards the targets in the program result frameworks, and to develop a work plan, some countries did not have specific result frameworks; in certain countries, lack of baselines hindered the identification of programme targets. This also denied the programme the ability to identify the extent to which change has happened at each level of result. Country-specific results framework would have enabled tracking of achievements and contributions from each target country. Future programmes should consider developed country specific result framework reflecting actual activities and their respective targets of the country programme.

Recommendation 2. To FAO and UNDP. Results-based management. Future programs should apply results-based management approach where activities and programme products are treated as a means to an end; and not the achievement of the desired change. This requires the development of an M&E framework, plan and data collection tools that articulate instrumental and transformational changes rather than processes. This will enable future programmes not to miss the opportunities to report on transformative changes that can be directly attributed to the programme's interventions and efforts.

Recommendation 3. To FAO and UNDP. Needs assessment for target countries. While some countries developed needs assessments (e.g. Nepal, Philippines and Thailand), to determine the strengths and weaknesses and guide implementation, not all countries developed them. Granted, the programme conducted extensive stocktaking of existing initiatives, gaps and needs and in the start-up phase of the programme, which informed the countries' workplans. However the global results framework was the same for all. Subsequent similar programmes design should include need and capacities assessment of each country so that country specific activities and institutional capabilities will be reflected in the programme document.

Actions to follow up or reinforce initial benefits from the programme

Recommendation 4. To FAO and UNDP country offices. Advocating for program uptake. Continue lobbying with the relevant government partners to adopt programme outcome in their system, e.g. including of indicators in M&E system of agriculture ministry, inclusion of climate change in evaluation and planning format of the planning commissions, adopting vulnerability assessment in regular activities of the ministry, using the protocol to estimate loss and damages.

Recommendation 5. To FAO and UNDP. Resource mobilization. Mobilize more financial support to scaling up lessons learned from NAP-Ag and also move further to support pilot adaptation options identified by the programme that can contribute to enhance knowledge and evidence base on CCA for the agriculture sector.

Proposals for future directions underlining main objectives

Recommendation 6. To FAO and UNDP country offices. Private sector involvement. There was little evidence of involvement of the private sector, yet some of the climate adaptation options proposed in the NAP-Ags e.g. on irrigation technologies require the input of the private sector. Involving the private sector particularly in the CBA would have informed the programme on the viability and feasibility of some of their proposed adaptation options that would require production by the private sector. Hence, in future programmes, involvement of private sector in such activities should be considered.

Recommendation 7. To FAO and UNDP. Implementation resources. NAP-Ag programme outcomes mainly addressed the formulation of adaptation planning instruments in countries; however, real implementation of this roadmaps and planning instruments was not considered (including public expenses, human resources, institutional arrangements, technology, among others). In future

programmes, the implementation process in countries need to be identified and considered in the design of such instruments. Also, for the sustainability of territorial adaptation actions (with private sector, farmers), follow-up/guidance by FAO and UNDP is recommended in support of the governments through existing focal points such as Ministries of Agriculture or Ministries of Environment.

Recommendation 8. To FAO and UNDP. To strengthen gender mainstreaming in adaptation options, future programming should continue to promote gender and youth specific and inclusive adaptation options and push for inclusion of aspects that guarantee access to rights and opportunities. These can include, for example, awareness programmes for policy makers and planning personals, leadership development for women and youth and involvement of private sector and financial institutions, aiming to increase access to funding for climate and gender friendly agriculture practices and technology and access to markets; inclusion of Ministries whose mandates includes gender and/or of other government organs and multi-sector stakeholders at the national and subnational levels (including members of parliament). Evidence-based adaptation options that include extreme vulnerable groups' needs should also be included.

4.3 Lessons learned

1. Strategic partnerships. Partnering with government was strategic because of their wide influence and reach and the convening power of other ancillary ministries and departments. This creates traction for programme sustainability once the processes are institutionalized and mainstreamed in the existing national processes. This partnership, when well nurtured, can provide a fertile learning platform of what does and doesn't work because feedback can be easily solicited and received from downstream beneficiaries through the existing feedback mechanisms, without undue extra resources required.

2. Landscape consultation approach. Convening different and relevant stakeholders including different ministries, research institutes, non-state actors, local governance, academic institutes and private sectors in adaptation planning makes the process of mainstreaming CCA in development planning and policy formulation easier, as it creates environment to fulfil their roles and responsibilities. This also helped to bring policy makers and planners together to address the planning-related problems that countries were facing, and also generated funding for piloting. The interaction between various sectors ensures reflection of issues, priorities and concerns of these sectors in the plan. This also helps to address inter-sectoral coordination gaps and facilitates program implementation. This landscape approach also helped to build consensus around priorities including the Adaptation Dialogues, and eased the ownership process by incorporating multi-stakeholder inputs into the programme deliverables, for example the NAPs.

3. Streamlining processes. Based on the various multi-stakeholders involved, the programme had to adapt to harmonized templates and processes, e.g. for reporting and procurement. The harmonization process created some delays. For future programmes, this harmonization should be factored in to the planning process during the programme inception phase to avoid unnecessary delays which eat into the programme implementation time frame.

4. Upstream propositions. The nature of interventions of this programme was upstream geared towards influencing policies, planning and financing statutory strategies, and institutional strengthening. From experience, this takes a long time to formulate and manifest, respectively, and the policy integration cycle is not always aligned to the programme timeframe. It is therefore important to determine which upstream activities can realistically be achieved in the shelf-life of the programme, also bearing in mind that this being a global programme, the policy cycle, and pliability of institutional structures and systems, will also vary from country to country.

5. Benefit of lessons from the past programme. Documenting lessons learned and best practices from previous adaptation planning activities allowed the agriculture NAP development process to be informed by past experiences and proven methodologies. The programme also leveraged UNDP and FAO's experiences in developing and LDCs by working in conjunction with and extrapolating insights from

programmes such as the Ecosystem Based Adaptation Programme for Mountain Ecosystems and the Global Climate Change Alliance (GCCA).

6 Key entry points. Some countries, for example Zambia, found that the use of provincial agricultural planners were a valuable entry point for influencing the integration of CCA concerns in work plans and budgets in the Ministry of Agriculture and that they ought to have been engaged in the adaptation planning processes right from the onset.

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Appendix 1. People interviewed

List of the informants who provided information through Zoom/Skype interview, Questionnaire survey and through phone communication.

Surname	Name	Organization	Position/Role in NAP-Ag	Gender	Location
NAP-Ag Global					
Distefano	Elisa	FAO, Global	Climate Change Adaptation Consultant	Female	Rome
Kohli	Rohini	UNDP, Global	Lead Technical Specialist NAP-GSP – Global Programme Manager, UNDP	Female	Bangkok
Labate	Umberto	UNDP, Global	Programme Management Analyst	Male	Bangkok
Nelson	Sibyl	FAO, Global	Gender Advisor	Female	Rome
Spairani	Alessandro	FAO, Global	Project Officer	Male	Rome
Teng	Julie	UNDP, Global	Technical Specialist	Female	Bangkok
Wolf	Julia	FAO, Global	Global Programme Manager, FAO	Female	Rome
Wong	Theresa	FAO, Global	Knowledge Management Specialist	Female	Rome
UNFCCC					
Desanker	Paul	UNFCCC	Manager, NAP & Policy	Male	Bonn
Meletjane	Motsomi	UNFCCC	Team Leader LEG & NAP	Male	Bonn
NAP-Ag Nepal					
Adhikary	Srawan	FAO	Program Specialist	Male	Nepal
Bahadur KC	Hari	Ministry of Agriculture and Livestock Development	Joint Secretary	Male	Nepal
Karki	Gyanendra	UNEP	MoEF National NAP process lead	Male	Nepal
Pandey	Bidya	Ministry of Agriculture and Livestock Development	Under Secretary	Female	Nepal
Paudel	Apar	UNDP	Climate change Policy Analyst	Male	Nepal
Shrestha	Srijana	Ministry of Forests and Environment	Under Secretary	Female	Nepal
NAP-Ag Thailand					
Chailangaar	Sairak	Ministry of Agriculture	Project Coordinator	Female	Thailand
Damen	Beau	FAO, RAP	Climate Change Officer	Male	Thailand
Nyman	Ninnilkkala	UNDP		Female	Switzerland
Saenghkaew	Ienkate	FAO	NAP-Ag National Coordinator	Female	Thailand
Sitathani	Krib	UNDP	Programme Officer	Male	Thailand
Songkhao	Chompunut	Ministry of Natural Resources and Environment		Female	Thailand
Yuberk	Napaporn	UNDP	Programme Analyst/	Female	Thailand

			oversight of NAP-Ag		
NAP-Ag Philippines*					
Alcedo	Mary Jane B.	DA Regional Field Office 1	AMIA Coordinator/Senior science research specialist	Female	Philippines
Alonte	Ma. Criscia D.	Oscar M. Lopez Centre	Project Coordinator	Female	Philippines
Baltazar	Perla	CRA Office	Technical Officer	Female	Philippines
Baraocor	Lainie	Bureau of Fisheries and Aquatic Resources Fisheries	Planning and Economic Division	Female	Philippines
Bobbier	Sandy	DA Regional Field Office 5	Climate Change Coordinator	Male	Philippines
Bohol	Thea	FAO	NAP-Ag gender specialist	Female	Philippines
Custodio	Mylene	Climate Change Commission	Development Management Officer	Female	Philippines
Del Rosario	Betti P.	Asian Institute of Developmental Studies, Inc.		Female	Philippines
Eleazar	Floradema	UNDP	Programme Manager	Female	Philippines
Estrella	Erie	PAGASA	Weather Facilities Specialist	Female	Philippines
Felipe	Judi Anne	DA Planning and monitoring service	M&E Officer	Female	Philippines
Gabinete	Claudius Caezar	FAO	Former NAP-Ag National Project Coordinator; currently NDC partnership	Male	Thailand
Ilaga	Alicia	Department of Agriculture former Systems-Wide Climate Change Office now the Climate Resilient Agriculture (CRA) Office	Director	Female	Philippines
Labaria	Elirozz Carlie	FAO	NAP-Ag National Project Coordinator	Female	Philippines
Lasco	Rodel	Oscar M. Lopez Centre	Executive Director	Male	Philippines
Mannos	Arnel	PAGASA	Weather Facilities Specialist	Male	Philippines
Mortel	Guia Marie	FAO	GIS specialist	Female	Philippines
Palaña	Maricar	Climate Change Commission	Implementation and Oversight	Female	Philippines
Palmos	Gwyneth Anne	UNDP	Programme Analyst	Female	Philippines
Solis	Annaliza	PAGASA	Chief of Climatology and Agrometeorology Division	Female	Philippines
Tanchuling	Hazel	Rice Watch Action Network	Executive Director	Female	Philippines
Tiongosn	Perpi	Oscar M. Lopez Centre	Associate Director	Female	Philippines
*This list also includes participants of the outcome harvesting workshop held in December 2019 in the Philippines					
NAP-Ag Viet Nam					
Bui	My Binh	Ministry of Agriculture and Rural Development, IDC	NAP-Ag project coordinator	Female	Viet Nam
Bui	Viet Hien	UNDP		Female	Viet Nam

Appendix 1. People interviewed

Chu	Van Chuong	Ministry of Agriculture and Rural Development	National Project Director	Male	Viet Nam
Thai	Anh	FAO		Male	Viet Nam
Tran	Nghia Dai	Ministry of Agriculture and Rural Development, IPSARD	National Consultant in development of NAP-Ag roadmap and set of indicator	Male	Viet Nam
Tran	Thuyanh	UNWOMEN	Programme Analyst Gender, Disaster & Climate Change	Female	Viet Nam
Tran	Van The	Ministry of Agriculture and Rural Development IEA		Male	Viet Nam
NAP-Ag Colombia					
Castillo	Damaris	FAO	Professional of risk and vulnerability analysis	Female	Colombia
Gutierrez	Jorge	FAO	Coordination of the risk and vulnerability analysis of the agricultural sector of the NAP-Ag	Male	Colombia
Lozano Castro	Nelson Enrique	Ministry of Agriculture and Rural Development	Coordinator of the Environmental Sustainability and Climate Change Group	Male	Colombia
Márquez Torres	Martha Liliana	Ministry of Agriculture and Rural Development	Professional for the Environmental Sustainability and Climate Change Group	Female	Colombia
Martin	Adriana	Ex-FAO	Ex-Coordinator of NAP-Ag FAO component	Female	Colombia
Melo León	Sioux Fanny	National Planning Department	Contractor	Female	Colombia
Pinzón	Luz Johana	National Planning Department	Contractor	Female	Colombia
Quintero	Diana	UNDP	Focal point coordinating the NAP-Ag Program	Female	Colombia
Rueda	Juan Carlos	National Planning Department	Contractor	Male	Colombia
Vergara	Maria	FAO	Support within the Programmatic Framework of FAO Country Colombia	Female	Colombia
NAP-Ag Uruguay					
Balian	Carolina	UNDP	Former - Technical Specialist NAP-Ag	Female	Uruguay
Jones	Cecilia R.	FAO	Former - National Coordinator for NAP-Ag	Female	Uruguay
Plata	Vicente	FAO	Official a Cargo Representation of FAO	Male	Uruguay
NAP-Ag Guatemala					
Barrena	David	Ministry of Environment and Natural Resources	Advisory Inventory of GHG	Male	Guatemala
Caal	Wagner	SEGEPLAN, General Secretariat for Planing of the Presidency of the Republic	Head of the Department of Environment Development Analysis	Male	Guatemala
Galvez	Eliseo	FAO	National Coordinator of the NAP-Ag	Male	Guatemala
García Barrios	Fernando	UNDP	Programme Officer NAP-Ag UNDP component	Male	Guatemala

FAO-UNDP joint evaluation of the project "Integrating agriculture into National Adaptation Plans (NAP-Ag)"

Hernandez	Hector	Ministry of Agriculture, Livestock and Food	Technical Monitoring Unit in the NAP-Ag project in the UCC- Ministry of Agriculture, Livestock and Food component	Male	Guatemala
Leal	Martin	Ministry of Agriculture, Livestock, and Food	Coordinator of Ministry of Agriculture, Livestock and Food Climate Change Unit	Male	Guatemala
Lopez Menchu	Dunia	UNDP	Monitoring and Planning. Technical Assistance to NAP-Ag	Female	Guatemala
Perez Arana	Saul	Ministry of Environment and Natural Resources	Head of the Dept. of Climate Change Mitigation	Male	Guatemala
Sotomayor	Jorge Isaac	Ministry of Agriculture, Livestock, and Food	Head of the Irrigation Dept.	Male	Guatemala
Toledo	Lilian Elizabeth	USAC- Universidad de San Carlos de Guatemala	Member of the National Monitoring Committee for the NAP-Ag Project	Female	Guatemala
NAP-Ag Kenya					
Ndetu	Veronica	Ministry of Agriculture	NAP-Ag focal point- Ministry of Agriculture	Female	Kenya
Otieno	Zipora	Former NAP-Ag project coordinator	FAO	Female	Kenya
NAP-Ag Uganda					
Mujabi	Sarah	UNDP-Uganda	Provisional coordinator with Willy Kakuru	Female	Uganda
Twinomuhangi	Revocatus	Makerere University	Coordinator MUCCRI	Male	Uganda
NAP-Ag Zambia					
Asumani	Arthur	UNDP - Zambia	Technical Officer	Male	Zambia
Musonda	Winnie	UNDP - Zambia	Energy and Climate head	Female	Zambia
Shula	Reynolds	FAO - Zambia	Former NAP-Ag National Coordinator- now in the ministry of agriculture	Male	Zambia
NAP-Ag Gambia					
Fatajo	Lamin	FAO	Former NAP-Ag National Coordinator	Female	Gambia

Appendix 2. Project summary table, rating performance table and final evaluation rating criteria

Project summary table				
Project title:	Supporting developing countries to integrate the agricultural sectors into National Adaptation Plans (NAPs)			
Atlas Award ID:	00072738		at endorsement (USD)	at completion (USD)
Project ID:	00093171			
UNDP Project ID:	PIMS 5246	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety financing:	17 910 125.19	17 910 125.19
Countries:	Asia: Nepal, the Philippines, Thailand, Viet Nam Africa: Gambia, Zambia, Uganda, Kenya LatinAmerica: Uruguay, Colombia, Guatemala	in kind:	-	-
Focal area:	Climate change/agriculture	Other:	-	-
Operational programme:	Integrating climate change adaptation (CCA) in NAP	Total co-financing:		
Executing agency:	UNDP (executing agency) FAO (responsible party)	Total project cost:	17 910 125.19	17 910 125.19
PAC Meeting Date:	12 January 2014	ProDoc Signature (date project began):	1 August 2015	
Management arrangement	DIM	(Operational) closing date: 31/12/2020	Proposed:	Actual:
Implementing partner	National Climate Change focal points, Ministries of Agriculture, Planning and Finances; Line Ministries (water, public works, energy, environment, health, women affairs and forestry.		31/12/2018 then extended to 31/12/2020 as per Board recommendation	31/12/2020

Rating project performance		
Criteria	Rating	Comments
Overall quality of M&E	5	S
M&E design at project start-up	5	S
M&E at implementation	5	S
IA & EA Execution: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of project implementation/execution	6	HS
Implementing agency	6	HS
Executing agency execution	6	HS
Outcomes: Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of project outcomes	5	S
Relevance: Relevant (R), Not Relevant (NR)	2	R
Effectiveness	5	S
Efficiency	5	S
Sustainability: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU), Unlikely (U)		
Overall Likelihood of sustainability	4	L
Financial resources	4	L
Socio-economic	4	L
Institutional framework and governance	4	L
Environmental	4	L
Impact: Significant (S), Minimal (M), Negligible (N)		
Environmental status improvement		Impact could only be seen in the future
Environment stress reduction		Same as above
Progress towards stress /status change		Same as above
Overall project results	5	S

Final evaluation rating criteria

Outcome Ratings

The overall ratings on the outcomes of the project will be based on performance on the following criteria:

- i. relevance
- ii. effectiveness
- iii. efficiency

Project outcomes are rated based on the extent to which project objectives were achieved. A six point rating scale is used to assess overall outcomes:

- i. *Highly satisfactory (HS)*: Level of outcomes achieved clearly exceeds expectations and/or there were no short comings.
- ii. *Satisfactory (S)*: Level of outcomes achieved was as expected and/or there were no or minor short comings.
- iii. *Moderately Satisfactory (MS)*: Level of outcomes achieved more or less as expected and/or there were moderate short comings.
- iv. *Moderately Unsatisfactory (MU)*: Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings.
- v. *Unsatisfactory (U)*: Level of outcomes achieved substantially lower than expected and/or there were major short comings.
- vi. *Highly Unsatisfactory (HU)*: Only a negligible level of outcomes achieved and/or there were severe short comings.
- vii. *Unable to Assess (UA)*: The available information does not allow an assessment of the level of outcome achievements.

The calculation of the overall outcomes rating of projects will consider all the three criteria, of which relevance and effectiveness are critical. The rating on relevance will determine whether the overall outcome rating will be in the unsatisfactory range (MU to HU = unsatisfactory range). If the relevance rating is in the unsatisfactory range then the overall outcome will be in the unsatisfactory range as well. However, where the relevance rating is in the satisfactory range (HS to MS), the overall outcome rating could, depending on its effectiveness and efficiency rating, be either in the satisfactory range or in the unsatisfactory range.

The second constraint applied is that the overall outcome achievement rating may not be higher than the effectiveness rating.

During project implementation, the results framework of some projects may have been modified. In cases where modifications in the project impact, outcomes and outputs have not scaled down their overall scope, the evaluator should assess outcome achievements based on the revised results framework. In instances where the scope of the project objectives and outcomes has been scaled down, the magnitude of and necessity for downscaling is taken into account and despite achievement of results as per the revised results framework, where appropriate, a lower outcome effectiveness rating may be given.

Sustainability Ratings

The sustainability will be assessed taking into account the risks related to financial, socio-political, institutional, and environmental sustainability of project outcomes. The evaluator may also take other risks into account that may affect sustainability. The overall sustainability will be assessed using a four-point scale.

- i. *Likely (L)*. There is little or no risks to sustainability.
- ii. *Moderately Likely (ML)*. There are moderate risks to sustainability.
- iii. *Moderately Unlikely (MU)*. There are significant risks to sustainability.
- iv. *Unlikely (U)*. There are severe risks to sustainability.
- v. *Unable to Assess (UA)*. Unable to assess the expected incidence and magnitude of risks to sustainability.

Project M&E Ratings

Quality of project M&E will be assessed in terms of:

- i. Design
- ii. Implementation

Quality of M&E on these two dimensions will be assessed on a six point scale:

- i. *Highly satisfactory (HS)*: There were no short comings and quality of M&E design /implementation exceeded expectations.
- ii. *Satisfactory (S)*: There were no or minor short comings and quality of M&E design /implementation meets expectations.
- iii. *Moderately Satisfactory (MS)*: There were some short comings and quality of M&E design/implementation more or less meets expectations.
- iv. *Moderately Unsatisfactory (MU)*: There were significant shortcomings and quality of M&E design / implementation somewhat lower than expected.
- v. *Unsatisfactory (U)*: There were major short comings and quality of M&E design/implementation substantially lower than expected.
- vi. *Highly Unsatisfactory (HU)*: There were severe short comings in M&E design/implementation.
- vii. *Unable to Assess (UA)*: The available information does not allow an assessment of the quality of M&E design / implementation.

Implementation and Execution Rating

Quality of implementation and of execution will be rated separately. Quality of implementation pertains to the role and responsibilities discharged by the GEF Agencies that have direct access to GEF resources. Quality of Execution pertains to the roles and responsibilities discharged by the country or regional counterparts that received GEF funds from the GEF Agencies and executed the funded activities on ground. The performance will be rated on a six-point scale.

- i. *Highly satisfactory (HS)*: There were no short comings and quality of implementation /execution exceeded expectations.
- ii. *Satisfactory (S)*: There were no or minor short comings and quality of implementation /execution meets expectations.
- iii. *Moderately Satisfactory (MS)*: There were some short comings and quality of implementation / execution more or less meets expectations.
- iv. *Moderately Unsatisfactory (MU)*: There were significant shortcomings and quality of implementation / execution somewhat lower than expected.
- v. *Unsatisfactory (U)*: There were major short comings and quality of implementation /execution substantially lower than expected.

- vi. *Highly Unsatisfactory (HU)*: There were severe short comings in quality of implementation/ execution.
- vii. *Unable to Assess (UA)*: The available information does not allow an assessment of the quality of implementation / execution.

Results of the programme activities

Country	Baseline	MTR status	(Final Status)/additional to baseline	Comment/Target
Planned Outcome: Climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes				
0.1 Number of gender-sensitive adaptation action areas prioritized by the agricultural sectors and commenced implementation in the context of existing national and sub-national development frameworks. Unit= no of areas				
Zambia	8	In progress	2	2
Kenya	7	In progress	4	2
Uganda	4	In progress	8	2
Viet Nam	6	In progress	8	2
Nepal	7	In progress	2	2
Philippines	4	In progress	9	2
Thailand	2	In progress	4	2
Uruguay	7	In progress	2	2
Colombia	9	n/a	6	2
Gambia		n/a	5	2
Guatemala	3	n/a	4	2
0.2 Assessment methodology for medium term and annual budget CCA-relevant expenditure for the agriculture sector validated officially in at least 4 countries (<i>Indicator changed</i>)				
Zambia	No data available	No data available		Assessment demonstrated in 3-4 countries
Kenya	No data available	No data available	Completed – 1	Assessment demonstrated in 3-4 countries
Uganda	No data available	No data available	Completed – 1	Assessment demonstrated in 3-4 countries
Viet Nam	No data available	No data available		Assessment demonstrated in 3-4 countries
Nepal	No data available	No data available	Completed – 1	Assessment demonstrated in 3-4 countries
Philippines	No data available	No data available	Partially completed	Assessment demonstrated in 3-4 countries
Thailand	No data available	No data available		Assessment demonstrated in 3-4 countries
Uruguay	No data available	No data available		Assessment demonstrated in 3-4 countries
Colombia		No data available		Assessment demonstrated in 3-4 countries
Gambia		No data available	Partially completed	Assessment demonstrated in 3-4 countries

Guatemala		No data available	Partially completed	Assessment demonstrated in 3-4 countries
Output 1: Technical capacity and institutions on NAPs strengthened				
<p>Indicator 1.1. Proportion of technical staff and public service officers supporting agriculture-based livelihood adaptation in relevant ministries trained in national adaptation planning and budgeting, including the technical aspects of formulating roadmaps, and conducting economics of adaptation assessments. Unit=No of staff/percentage of staff. Indicator tracks the number of people who received training through the programme, totaling numbers trained across Activities 1.1. and 1.2 (see details under corresponding headings). This will be focused largely on Ministries of Agriculture, Environment, Planning and Finance, Water, Education, Transport, Housing, Community Development, relevant national meteorological institutes and disaster management authorities</p> <p>The target value has been estimated based on 30 participants per training session. Reporting is provided in hard numbers (rather than as a proportion) due to insufficient baseline data for some countries.</p> <p>Baseline numbers vary significantly by country depending on the number of Ministries and Departments surveyed. An effort was made to count individuals who attended multiple trainings only once, avoiding double-counting.</p> <p>TARGET: The original target value specifies at least 30% of staff supporting climate risk management within key ministries trained. The programme team has estimated a realistic target value which, in most countries, goes beyond this 30%.</p> <p>Kindly note that the high results some countries are attributable to a much wider range of stakeholders (beyond the technical staff and public service officers in relevant ministries identified in the baseline) having been trained.</p>				
Zambia	No data	30	241	120
Kenya	321	24	217	120
Uganda	No data	0	337	120
Viet Nam	No data	137	931	90
Nepal	616	0	214	90
Philippines	38	107	383	90
Thailand	No data	60	345	90
Uruguay	148	30	960	90
Colombia	No data	No data	813	60
Gambia	No data	No data	396	60
Guatemala	No data	No data	405	60
1.2 Technical groups formed comprising of NAPs-trained personnel from the Ministries of Agriculture, Finance, Planning and Environment and other relevant sectors. Unit=no of group formed (new)				
Zambia	0		1	1
Kenya	0		1	1
Uganda	0		1	1
Viet Nam	0		1	1
Nepal	0		1	1
Philippines	0		1	1
Thailand	0		1	1
Uruguay	0		1	1
Colombia	0		1	1
Gambia	0		1	1
Guatemala	0		1	1
Output 2: Integrated roadmaps for NAPs developed				
2.1 Number of national and subnational planning and budgeting roadmaps formulated to guide the process of integrating climate change concerns affecting livelihoods into the agriculture sector. Unit= National/subnational roadmaps				
Zambia	0	0		1
Kenya	0	1	1	1
Uganda	0	In advanced stage	1	1
Viet Nam	1	Progressing	1	1
Nepal	1	In advanced stage	1	1
Philippines	1	Progressing	1	1
Thailand	0	Progressing	1	1
Uruguay	1	In advanced stage	1	1
Colombia			1	1

Gambia			1	1
Guatemala			1	1
2.2 MTR Table. Number of target institutions with increased technical capacity to manage adverse impacts of climate change on agriculture-based livelihoods. Unit: No. of institutions *				
Zambia	0	3	3	5
Kenya	0	7	7	5
Uganda	0	0	1	5
Viet Nam	0	12	12	5
Nepal	0	0	5	5
Philippines	0	10	2	5
Thailand	0	1	1	5
Uruguay	0	7	18	5
Colombia	0		2	5
Gambia	0		5	5
Guatemala	0		4	5
2.3 Assessment methodology for medium term and annual budget CCA-relevant expenditure for the agriculture sector demonstrated in at least 4 countries				
Zambia	0		-	Assessment methodology demonstrated in at least 4 countries
Kenya	0		Completed	
Uganda	0		Completed	
Viet Nam	0		-	
Nepal	0		Completed	
Philippines	0		Partially completed	
Thailand	0		-	
Uruguay	0		-	
Colombia	0		Partially completed	
Gambia	0		-	
Guatemala	0		Partially completed	
Output 3: Evidence-based results for NAPs improved				
3.1 Number of Ministries of Agriculture where impact evaluation or M&E frameworks for adaptation in the agriculture sector are demonstrated				
Unit= impact evaluation of M&E framework				
Zambia	0	Impact evaluation training/application & programme ID in process	1	1
Kenya	1	In process enhancing M&E of KCSAF	1	1
Uganda	0	Impact evaluation training/application & programme ID in process	1	1
Viet Nam	0	Scoping for Outcome level M&E	1	1
Nepal	0	Scoping for both impact evaluation & Outcome level in process	1	1
Philippines	1	Scoping for Outcome level M&E in process	1	1
Thailand	0	Scoping for impact evaluation potential	1	1
Uruguay	1	Impact evaluation under process for 2 programmes	1	1
Colombia			1	1
Gambia			1	1

Guatemala			1	1
Output IV: Advocacy and knowledge-sharing on NAPs promoted				
Indicator 4.1: Number of best practices and lessons learned taking into account gender dimensions, from the programme compiled and disseminated				
N. best practices & lessons learned	0		11 national exchange consultations (closing workshops and national workshops on lessons learned) in which good practices and lessons learned on adaptation were shared.	4 national exchange consultations and 8 case studies shared per country
Indicator 4.2: Number of communication platforms in which best practices and lessons learned were shared and disseminated at national and international platforms				
N. communications platforms/events	0		30 international/ regional events 11 national platforms	10 events
Zambia	0			
Kenya	0			
Uganda	0			
Viet Nam	0			
Nepal	0			
Philippines	0			
Thailand	0			
Uruguay	0			
Colombia	0			
Gambia	0			
Guatemala	0			

Appendix 3. National plans, policies and strategies

Kenya

- i. National Climate Change Response Strategy 2010
- ii. National Climate Change Action Plan 2013–2018
- iii. Climate Change Act 2016
- iv. National Adaptation Plan 2015

Uganda

- i. National Climate Change Policy 2013
- ii. National Adaptation Program of Action 2007

Zambia

- i. National Climate Change Response Strategy
- ii. National Climate Change Policy
- iii. Second National Agricultural Policy

Gambia

- i. Second Generational National Agricultural Investment Plan – Food and Nutrition Security

Guatemala

- i. Framework Law to Regulate the Reduction of Vulnerability
- ii. Compulsory Adaptation to the Effects of Climate Change and the Mitigation of Greenhouse Gases (Decree 7 of 2013)
- iii. National Policy on Climate Change (Governmental Agreement 329-2009)
- iv. National Action Plan on Climate Change which established Agriculture and Livestock as a priority area

Uruguay

- i. National Policy of Climate Change (2016)

Colombia

- i. National Development Plan (2010–2014)
- ii. National Climate Change Policy (2017)
- iii. National Disaster Risk Management policy (Law 1523)
- iv. Climate Change Law 1931

Nepal

- i. Priority Framework of Action (2011–2020)
- ii. National Agriculture Sector Development Priority (NASDP)
- iii. Sustainable Development Goals (SDG), 2016–2030
- iv. Agriculture Development Strategy (2015)
- v. Thirteenth Fiscal Plan (2013/14)
- vi. Agriculture Development Strategy (2014)

The Philippines

- i. Climate Change Act of 2009 (Republic Act 9729)
- ii. Philippines Development Plan (PDP, 2017–2022)
- iii. The Agriculture and Fisheries Modernization Plan (AFMP) (the food security component of the NCCAP)
- iv. The Philippine Disaster Reduction and Management Act of 2010

- v. The Strategic National Action Plan on Disaster Risk Reduction (2009–2019)
- vi. National Framework Strategy on Climate Change (NFSCC, 2010–2022)
- vii. National Climate Change Action Plan (NCCAP, 2011–2028)
- viii. Strategic National Action Plan on Disaster Risk Reduction (2009–2019)
- ix. Philippines Development Plan (PDP) 2011–2016 and 2017–2022

Thailand

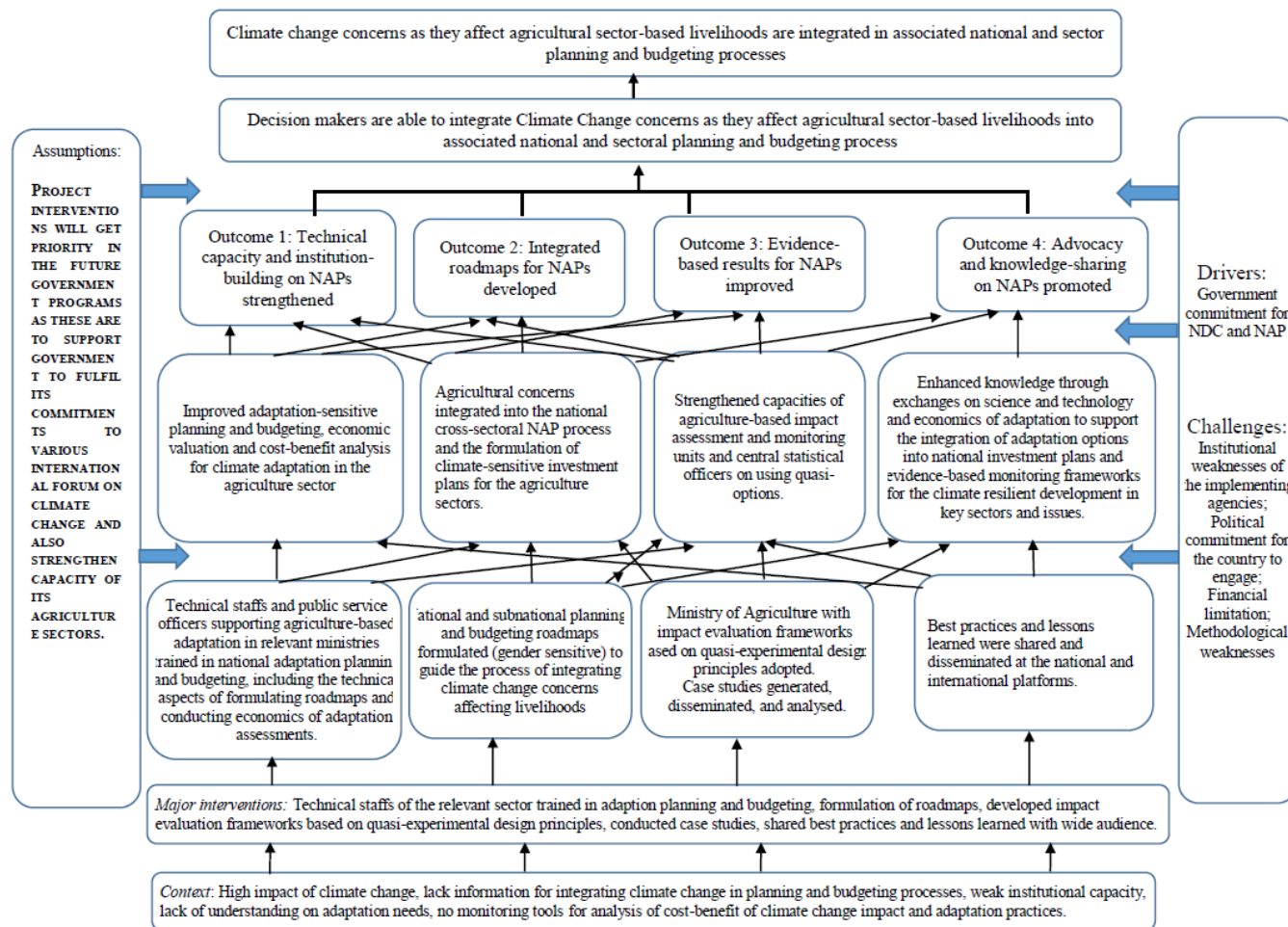
- i. Agriculture Strategic Plan on Climate Change (ASPCC 2017–2021)
- ii. The Agricultural Development Plan under the 12th National Economic and Social Development Plan (2017–2021)

Viet Nam

- i. Action Plan Framework for Climate Change Adaption in the Agriculture and Rural Development Sector (2008–2020)
- ii. National Climate Change Strategy (2011–2020)

Appendix 4. Theory of change and NAP-Ag Results Framework

NAP-Ag theory of change



Source: Elaborated by Evaluation Team based on documentation and interviews.

NAP-Ag Results Framework

Narrative summary	Indicator	Baseline	Targets End of Programme	Source of verification
Outcome				
Climate change concerns as they affect agricultural sector-based livelihoods are integrated in associated national and sectoral planning and budgeting processes	Indicator 1. Number of adaptation action areas prioritized by the agriculture sectors, and commenced implementation in the context of existing national and sub-national development frameworks.	To be assessed during inception phase.	22 actions areas (two per country) <u>prioritized</u> by the agriculture sectors, and commenced implementation with indicated budget from domestic or external sources.	Planning and policy documents, climate expenditure reviews analysis.
	Indicator 2. Number of countries where an assessment methodology for medium-term and annual budget CCA-relevant expenditure for the agriculture sector is validated officially.	To be assessed during inception phase.	Assessment methodology for medium-term and annual budget CCA-relevant expenditure for the agriculture sector validated officially in at least four countries.	Climate expenditure reviews at the sector level and national level (also with reference to other sectors).
Component 1				
Output 1: Technical capacity and institutions on NAPs strengthened	Indicator 1.1. Proportion of technical staff and public service officers supporting agriculture-based livelihood adaptation in relevant ministries trained in national adaptation planning and budgeting, including the technical aspects of formulating roadmaps, and conducting economics of adaptation assessments.	To be assessed during inception phase.	At least additional 30 percent of staff supporting climate change risk management within key ministries.	Evaluation reports; gender-disaggregated survey to determine number of technically qualified staff working on and having already been trained to address climate change concerns for agriculture-based livelihoods in key ministries.
Component 2				
Output 2: Integrated roadmaps for NAPs developed	Indicator 2.1. Number of national and subnational planning and budgeting roadmaps formulated taking gender into account, to guide the process of integrating climate change concerns affecting livelihoods into the agriculture sector.	To be assessed during inception phase.	All 11 countries have consolidated and mandated gender-sensitive integrated roadmaps for NAPs with a particular focus on the agriculture sector. In addition, at least three national and two sub-national planning and budgeting instruments adopted by national/local government per country.	Survey of national and sub-national planning documents, strategic plans and reports by ministries/institutions which directly quote outputs, indicators and activities relating to the consideration of climate change concerns for livelihood opportunities dependent on the agriculture sector.

Narrative summary	Indicator	Baseline	Targets End of Programme	Source of verification
	Indicator 2.2 Number of target institutions with increased technical capacity to manage adverse impacts of climate change on agriculture-based livelihoods.	Limited, to be assessed during the programme inception phase.	At least 11 key institutions (one per country) at national and sub-national level.	Survey of institutions at the national and sectoral level with planning and budgeting instruments in place to guide the management of climate change risks affecting agriculture-based livelihoods in a gender sensitive manner.
	Indicator 2.3 Number of countries where the assessment methodology for medium-term and annual budget CCA-relevant expenditure for the agriculture sector is demonstrated.	Limited, to be assessed during the programme inception phase.	Assessment methodology for medium term and annual budget CCA-relevant expenditure for the agriculture sector validated officially in at least four countries.	Methodology for each country published online including a compilation and analysis of sources of climate finance related data in each country.
Component 3				
Output 3: Evidence-based results for NAPs improved	Indicator 3.1 Number of ministries of agriculture where impact evaluation or M&E frameworks for adaptation in the agriculture sector are demonstrated.	To be assessed during inception phase.	Impact assessment methodology and/or monitoring and evaluation framework/indicators for adaptation in the agriculture sector demonstrated in at least 11 ministries of agriculture or national agencies.	Planning and policy documents for monitoring and evaluation for adaptation practices within ministries of agriculture and national agencies, such as finance, planning, meteorological agencies and disaster management authorities.
Component 4				
Output 4: Advocacy and knowledge-sharing on NAPs promoted	Indicator 4.1 Number of best practices and lessons learned, taking into account gender dimensions, from the project disseminated. This will include dissemination through documentation and relevant communication platforms at national and international levels.	To be assessed during inception phase.	At least four national exchange consultations and eight case studies shared per country.	Number of additional entries in media of each country, workshop surveys, handbooks and reports on lessons learned and best practices).
	Indicator 4.2 Number of communication platforms in which best practices and lessons learned were shared and disseminated at the national and international platforms (South-South exchanges, regional forums, farmers' and women's advocacy organizations) and at the	To be assessed during inception phase.	10 events in total.	Lessons learned publications, information briefs, handbooks.

Narrative summary	Indicator	Baseline	Targets End of Programme	Source of verification
	UNFCCC, including events organized in partnership with the LEG).			

Appendix 5. Country case studies

Case study – Viet Nam

Programme Context: Viet Nam has been identified as a country that is particularly vulnerable to the effects of climate change. Specific climate change impacts related to agriculture and food security that are noted in the National Climate Change Strategy (2011) include the loss of agricultural products, land and assets, increased salinity due to sea level rise, changes to crop growth, productivity and growing seasons, increased risks of pest infection, and productivity impacts as well as disease risks for livestock. Water resources are at risk due to changes in rainfall patterns, increased floods and droughts, with less water resources available for people and agriculture as well as impacts of hydropower generation leading to increased competition for water resources. The Global Climate Risk Index 2019 report ranked Viet Nam as the sixth most affected country by extreme weather events and weather event related loss in 2017, and ninth worst affected overall for the period from 1998 to 2017.

In line with the global outcomes and outputs of the Programme, the NAP-Ag Programme in Viet Nam has provided strategic support to assist Viet Nam to address knowledge gaps on the implications of climate change in key agriculture sub-sectors, to identify appropriate adaptation measures and carry out CBA, and contributed to building capacity for CCA in sectoral planning for agriculture and rural development, including on climate finance, ensuring that the adaptation priorities and plans of the agriculture sector are incorporated in the NAP, as well as advancing the adaptation agenda in the policies and plans of the agriculture sector. Through the Programme, FAO and UNDP supported the Ministry of Agriculture and Rural Development on key activities to support the integration of CCA in national and sector strategies for the 2021–2030 periods and to provide for implementation of Viet Nam’s NDC.

Besides planned outcomes, the programme made some additional outcomes, which are as follows:

Technical guidelines Mekong Delta is home to 15 million people, most of whom depend on the delta’s rich soil and water for farming and fishing. Viet Nam produces over 10 percent of world’s rice market and provides 70 percent labour force of the country. 70 percent of the exported volume of rice in Viet Nam comes from the Mekong Delta area. However, farmers and other residents are experiencing problems that threaten their livelihoods as well as productivity, such as rising sea levels, droughts, dams, saltwater intrusion, etc. These threaten the whole agriculture sector in Viet Nam, and as a consequence, the livelihoods of a large number of farmers and, ultimately, the country’s economy.

There are many international NGOs interested in supporting farmers in the Mekong Delta, but a guiding mechanism was needed to manage them to avoid overlaps and assure their focus on the climate change issues of the agriculture sector. The NAP-Ag programme contributed in enhancing capacity of the government of the Mekong Delta by providing technical assistance from one international and three national consultants and supporting the organization of workshops on criteria for inter-province linkages adaptation investments within the Mekong Delta in order to promote coordination in investment within the sub-region.

These supports resulted in the elaboration and publication of technical guidelines on prioritizing climate-responsive investment decisions for new programmes in the Mekong Delta, which is an additional outcome of the programme and the contribution from the programme to develop guidelines is also acknowledged by the Vice-Minister of the Ministry of Planning and Investment. The guidelines are being implemented within the Ministry of Planning and Investment’s budgeting system for the Mekong delta as part of the implementation of Resolution No. 120/2017/NQ-CP on Sustainable and Climate-Resilient Development of the Mekong Delta. This was adopted by the Ministry of Planning and Investment in late 2018. This process was led by the Ministry of Planning and Investment and it also coordinated with UNDP, GIZ and the World Bank in this activity.

Decree to mainstream gender. The NAP-Ag programme organized various activities to discuss the draft action plans, including a specific action plan of the Ministry of Agriculture and Rural Development. In late 2016, the programme organized a workshop on "Gender in Agriculture and Climate Change" in collaboration with the Netherlands Development Organisation (SNV), the Viet Nam Women's Union and UN Women. This workshop was attended by participants from the provincial level from the Department of Agriculture and Rural Development offices, women's union chapters, cooperatives and small and medium enterprises in An Giang, BinhDinh, BinhThuan, Lao Cai, NinhThuan and QuangBinh provinces, departments of the Ministry of Agriculture and Rural Development, UN agencies and international NGOs. The focus was to enhance the capacity of policy makers and stakeholders on gender mainstreaming in agriculture and rural development as well as stakeholder consultations on how to address gender and empower women's economic roles in CCA in the agriculture and rural development sector.

Building on the workshop, NAP-Ag also conducted various other interactions including a round table meeting on Gender Responsive and Climate Smart Agriculture – Towards COP 23, organized in collaboration with SNV, UN Women, and Ministry of Agriculture and Rural Development and Ministry of Natural Resources and Environment officials (2017). Similarly, a training workshop on mainstreaming gender into responsive agriculture planning was organized in December 2017 in collaboration with SNV for staff from the ministries, institutions and provinces staff, focused on key concepts of gender equality and women's economic empowerment and their relevance to climate change, gap on gender issues in priority agriculture areas and emerging needs on gender capacity building. These and other activities organized to mainstream gender helped to develop a revised decree on agricultural extension with provision of mainstreaming gender.

The old Decree No. 02/2010/ND-CP was replaced by Decree No. 83/2018/ND-CP with provision of mainstreaming gender on agriculture extension and was approved and issued on 4 May 4 2018 by the Ministry of Agriculture and Rural Development. This is an additional Outcome of the programme. This helped to institutionalize gender mainstreaming in agriculture extension programmes. The decree states the importance of gender equality and women's economic empowerment and their relevance to climate change, identified gaps on issues in priority agriculture areas and emerging needs on gender capacity building for effective long term capacity enhancement. This encouraged gender equality in agriculture extension programmes like trainings for new technology transfer, educating in agriculture policies, providing agriculture based economic development opportunities, etc.

Programme concept papers. On request from the Ministry of Agriculture and Rural Development, using information generated by NAP-Ag, the programme developed a concept paper for a framework proposal for the adaptation fund on climate change challenges. Similarly, a GCF's readiness proposal entitled "Viet Nam National Adaptation Plan (NAP) Development and Operationalization Support Programme" was developed and submitted. The Ministry of Agriculture and Rural Development and UNDP led the programme development process. UNDP is also going to develop other programmes utilizing information and lessons from this programme. These fund arrangements will support the NAP development process, to scaling up outcomes of the programme and to address climate change issues in the country.

Technical paper on agriculture issues. The fourth Outcome of the programme was to promote advocacy and knowledge-sharing on national adaptation plans. This activity intended to make a wide audience aware on the climate change issues related to agriculture sectors. It had programmes to support exchange of science and technology and economics of adaptation to support the integration of adaptation options into national investment plans managed by ministries of finance/planning, and evidence-based monitoring frameworks for climate change resilient development in key sectors and issues, including inter-country North-South/South-South exchanges and inter-agency coordination on best practices/lessons learned. In addition to the outlined outputs, the programme worked with Climate Change, Agriculture and Food Security - South East Asia (CCAFS-SEA) on papers on agriculture issues under the UNFCCC KJWA. The programme also prepared briefing notes and case studies to

input to the nutritional dietary survey (NDS). This was an additional Outcome of the programme and it was led by the Department of International Affairs and FAO and UNDP supported the event. This helped partner countries to learn from the Viet Nam experience and the knowledge on input to NDS was also beneficial to other countries.

Indicators developed for the M&E system. The programme supported several research activities and from them developed indicators to monitor impact of climate change. It involved the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) and the Planning Department of the Ministry of Agriculture and Rural Development in the study to develop M&E indicators and systems for adaptation in the agriculture sector. Ten indicators were selected for field verification through the pilot exercise with ongoing CCA programmes. Based on field verifications, eight indicators of the ten were found to be highly feasible for implementation at the sub-national level, while two indicators were found to be suitable in contexts with additional external support or higher provincial monitoring capacity and resources. Based on the initial field verification, a web-based NAP-Ag M&E tool was developed and piloted by extending five ecological regions for a more representative assessment, with the addition of provinces. Training and technical support was provided to pilot groups in these five regions on the M&E system and indicators, including the web-based tool, data collection formats and process guidelines for collecting, screening and entering data. The piloting of these five provinces was evaluated in mid-2018, including through provincial and national workshops which finalized M&E system and indicators. It was planned to integrate it into the M&E system of the Ministry of Agriculture and Rural Development but delayed due to the COVID-19 pandemic. This activity was led by FAO jointly with the Ministry of Agriculture and Rural Development. (Final Report: Research No: IC. 170409 - Support to Stocktaking and Drafting of the Agricultural Component of Viet Nam's National Adaptation Plan Process, Hanoi, December 2017).

Supporting Factors: Viet Nam established a high-level National Steering Committee with representation from all sectors in December 2008. This helped in inter-sectoral coordination which helped to implement different programmes effectively including NAP-Ag. Similarly, in 2008, the Ministry of Agriculture and Rural Development issued its first Framework Programme for Action on Climate Change Adaptation for the Agriculture and Rural Development Sector for the period of 2008–2020. Besides, Viet Nam also developed several plans, strategies and policies which supported a smooth implementation of NAP-Ag programmes and helped to achieve the outcomes.

Case study - Nepal

Programme Context: The NAP-Ag programme in Nepal mainly focused on integrating CCA into the agriculture sector particularly through climate change sensitive approaches introduced in national and sub-national level development planning and budgeting. The programme implementation was guided by a steering committee, and technically supported by a technical task force (with members analogous to the NAP Thematic Working Group on Agriculture and Food Security) in the Ministry of Agriculture and Livestock Development. The Ministry of Agriculture and Livestock Development at federal level, the Ministry of Land Management, Agriculture and Cooperatives at provincial level and municipalities at local levels are major government entities engaged directly on agricultural development planning and budgeting, implementation and M&E. Divisions, sections, boards and committees within the ministries including their departments/directorates, programmes and centres/stations/laboratories constituted above 350 entities and 600 professionals, in different ways, engaged in agriculture development planning and monitoring.

NAP-Ag developed technical capacity and institutions of agricultural ministries (Ministry of Agriculture and Livestock Development and Ministry of Land Management, Agriculture and Cooperatives) through tools and methods development, knowledge material preparations, delivery of trainings, supporting in the sector planning and budgeting process through identification of ADS-based sector development pathways for integration of CCA, M&E framework, budget coding and expenditure tracking tools and budget and programme preparation guidelines.

In Nepal, NAP-Ag focused on the following specific results:

Outcome 1. Technical capacity and institutions on NAPs strengthened.

Output 1.1 Training and institutional capacity building in adaptation-sensitive planning.

Output 1.2 Training and institutional capacity building in economic valuation and investment appraisal tools.

Output 1.3 Developed training materials based on needs identified.

Outcome 2. Integrated roadmaps for NAPs developed.

Output 2.1 Institutional strengthening of Ministry of Agriculture Development and district authorities to mainstream CCA into ADS planning and budgeting.

Output 2.2 Consultative dialogues and planning processes supported at national and district level to mainstream CCA into sector planning and budgeting.

Outcome 3. Evidence-based results for NAPs improved.

Output 3.1 Design and apply impact assessment framework for existing agriculture-based livelihood projects.

Output 3.2 Strengthened capacity of agriculture-based monitoring units for monitoring.

Outcome 4. Advocacy and knowledge-sharing on NAPs promoted.

Output 4.1 Convened exchanges on science, technology and economics of adaptation to support integration of adaptation options into national adaptation plans.

Training modules and materials developed are adopted by the government. The programme prepared training modules and materials on CCA monitoring and trained central monitoring units, local planning committees and training centres. Training was also provided in economic valuation of ecosystem services, CBA of agriculture sector adaptation options and vulnerability assessment. These trainings have strengthened capacity of agriculture-based monitoring units. **The training manuals "Agriculture Sector Climate Change Adaptation Monitoring and Evaluation Framework - Training Manual 2018" are integrated in the training program of the government.** The programme has trained 157 permanent staff from the different training centres of the Ministry of Agriculture and

Livestock Development from all seven provinces and national training centres where they train their staff on various subjects to update or refresh knowledge. The integration of training manuals developed by the NAP-Ag help to continue these trainings beyond programme life.

Activity level climate budget coding. With the support from NAP-Ag, the Ministry of Agriculture and Livestock Development has pioneered an innovative activity-level climate budget coding/tagging method (previously done only at programme level). The method was included in “Agriculture Sector Climate Change Coding Guidelines-2019”, which were approved by the Ministry of Agriculture and Livestock Development in 2019. As a consequence, planning officials have to follow procedures indicated in the guideline to tag/code each planned activity as climate relevant, highly relevant or climate neutral, according to each sector climate code. The guidelines provide a list of seven typologies with key adaptation and low carbon activities in the agriculture sector that are defined as climate change relevant activities. This will help to track climate change investment in the agriculture sector and encourage budgeting for climate change friendly activities. Budget coding is now a mandatory provision in the Ministry of Agriculture and Livestock Development and its departments and is implemented since 2019.

M&E tools developed. The NAP-Ag programme team (including consultants) and the Ministry of Agriculture and Livestock Development collected information on existing indicators and data collection process within the Ministry of Agriculture and Livestock Development and developed M&E tools. Three ongoing adaptation practices in target districts were identified, and adaptation impact case studies were conducted. Based on the findings from these studies, an M&E framework was developed. The M&E tools improve M&E practices and make data collection processes more systematic and more reliable, which will also support evidence-based planning and budgeting. This will also strengthen the capacity of agriculture monitoring units of the Ministry in different provinces and at the centres. The M&E framework is yet to be integrated/harmonized in the Ministry of Agriculture and Livestock Development’s M&E system. There are still some challenges like different indicators and formats in the Ministry’s M&E system, different indicators to report to the Ministry of Finance and National Planning Commission and limitation of time to monitor for updating information. UNDP and FAO Country Office personnel are following this for integration of indicators in the Ministry of Agriculture and Livestock Development’s M&E system.

GCF programme developed for fund mobilization. The NAP-Ag programme provided support to the government to develop a proposal for GCF. The programme “Enhancing the resilience of ecosystems and vulnerable communities by adopting climate-resilient land-use practices (BRCRN)” is already approved and implementation initiated from May 2020. Information from NAP-Ag was also used to develop several other programmes’ concepts in the area of adaptation and mitigation in the agriculture sector. The Building Resilience in Churia Region of Nepal (BRCRN) programme will adopt climate resilient land use practices and also develop infrastructures to minimize disaster impacts. Utilizing lessons from the previous FAO programmes, this programme intends to restore, maintain and protect natural ecosystems.

Supporting factors. The programme was implemented through the existing government institutions from national to sub-national levels and guided by a steering committee, and technically supported by a technical task force which included experts from all thematic working groups. This helped to implement the programme effectively and achieve the outcomes.

Case study – The Philippines

1. Agriculture and climate change in the Philippines

The agriculture and fishing sectors contribute to 8.1 percent of the Philippines' gross domestic product (2019), being a vital sector for the country's economy. In 2018, the sector employed 24.3 percent of the total work force in the country (PSA, 2019). At the same time, due to its geographical location and archipelagic formation, the Philippines is one of the most climate change vulnerable countries in the planet.²² This cyclone and typhoon prone area is affected by climate phenomena such as El Niño and La Niña, which provoke more frequent and intense droughts and floods. All this stress is already threatening the productivity of farms and fisheries and eroding development gains in vulnerable regions. Climate change is expected to provoke even more intensification of cyclones and of extreme rainfall events. Anticipated climate change effects on agriculture in the short- and medium-term include decrease in crop yields, increase in incidence of pests and diseases, and shifts in crop production suitability. Ultimately, these will impact in food security and health, among others.

In response to the urgency for action on climate change, the Philippines adopted a series of documents that include

- i. Climate Change Act of 2009 (Republic Act 9729);
- ii. Philippines Development Plan (PDP, 2017–2022);
- iii. National Framework Strategy on Climate Change (NFSCC, 2010–2022);
- iv. National Climate Change Action Plan (NCCAP, 2011–2028);
- v. The Agriculture and Fisheries Modernization Plan (AFMP) (the food security component of the NCCAP);
- vi. The Philippine Disaster Reduction and Management Act of 2010; and
- vii. The Strategic National Action Plan on Disaster Risk Reduction (2009–2019).

The country also counts with an enabling institutional environment that includes multi-sector and multi-level institutions such as:

- i. The Philippine Climate Change Commission (CCC), a policymaking, independent and autonomous body, attached to the Office of the President that coordinates the country's climate change response in line with the Climate Change Act of 2009.
- ii. The Department of Agriculture.²³
- iii. The former systems-wide Climate Change Office, now Climate Resilient Agriculture (CRA) Office. The CRA oversees and coordinates all climate change related initiatives within the Department of Agriculture.
- iv. The National Economic and Development Authority (NEDA): overall development planning and policy coordinating body which consolidates the initiatives of the agriculture and fisheries sector, including initiatives on climate adaptation and mitigation.
- v. The Department of Science and Technology, through its Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) provides critical support to climate science and information systems.

²² The Philippines has been ranked by the 2018 Long-Term Climate Risk Index as the fifth most climate-affected country in the world.

²³ Philippines' agency responsible for the agricultural development and food security.

- vi. The Department of Environment and Natural Resources has a role in climate governance related with connection of agriculture to water and natural resources.
- vii. The Department of Interior and Local Government as the oversight body of local government units (LGUs), was involved to support cascading of plans to the local levels.
- viii. Academic, local development and research institutions that provide climate change and agriculture expertise allied with in-depth knowledge of the country. These include the University of the Philippines Los Baños Foundation, Asian Institute of Developmental Studies (AIDS), the Oscar M. Lopez Centre, the International Institute for Rural Reconstruction (IIRR) and the Rice Watch Action Network (RWAN).

2. NAP-Ag's pathway of change in the Philippines

The NAP-Ag programme was implemented in the Philippines from 2015 to 2020 with a total budget of USD 699 997.²⁴ Considering the above-described existing resources, the programme did not propose to develop a separate document or plan for NAP, but to integrate the NAP-Ag process in the NCCAP, in particular through the AFMP. The NCCAP is also aligned with other documents above mentioned, particularly in the disaster risk reduction and management area. With support from the global NAP-Ag team, NAP-Ag in the Philippines worked closely with above-mentioned partners to develop adaptation options from the national to the local level. Below is presented in a summary the main NAP-Ag structure in the Philippines and key-achievements/outputs per outcome area.

Goal: Climate change concerns, as they affect agricultural sector-based livelihoods, are integrated in associated national and sector planning and budgeting processes.

Outcome 1. Technical capacity and institutions on NAPs strengthened

The focus was on strengthening capacities of government institutions that play a key role in providing data, information and analysis for adaptation planning in agriculture. The trainings for PAGASA built upon existing products to further develop seasonal local weather forecasts for agriculture and fisheries, and ultimately supporting the development of a national climate information system for agriculture and fisheries in the Philippines. High-level dialogues among the Department of Agriculture, the Department of Environment and Natural Resources, and the CCC focused on landscape-based approaches to planning as a significant approach to mainstreaming CCA and DRR in the agriculture sector. NAP-Ag also supported participation of partners in international meetings within the UNFCCC, such as COPs and NAP Expos and in the KJWA meetings.

Outcome 2. Integrated roadmaps of NAPs developed

NAP-Ag supported the Department of Agriculture to integrate CCA and DRRM into the AFMP. This involved the development of a dedicated study focused on this integration process (including gender considerations)²⁵ and further technical assistance and facilitation of planning exercises, engaging also national and regional offices of the Department of Agriculture and its agencies. This outcome area included training on gender-mainstreaming in planning and programming for the agriculture sector, a study on the implications of the IPCC special report on the impact of global warming of 1.5 degrees

²⁴ Source: NAP-Ag Philippines Terminal Report.

²⁵ The study "Integration of Climate Change Adaptation (CCA) and Disaster Risk Management (DRM) in the Updating of the Agriculture and Fisheries Modernization Plan (AFMP) 2018-2023" was produced by the Asian Institute of Development Studies, Inc. (AIDS). The study supported the prioritization and selection of CRA actions in the national AFMP and regional plans and introduced the concept of "climate change corridors in the planning exercises, to anticipate potential conditions, issues, and challenges to food security and poverty under the "new normal" brought about by climate change." (source: Lessons learned report Philippines).

Celsius to the plans and programmes²⁶ of the Department of Environment and Natural Resources and the support for preparation of proposals for submission to the GCF. Finally, the programme supported quality assurance reviews of LCCAPs, aiming to improve access for local development funding (People's Survival Fund). The "Synthesis Report on Lessons Learned and Ways Forward: Integrating Agriculture in National Adaptation Plans Programme (NAP-Ag) Philippines" consolidates the roadmap for the Philippines.

Outcome 3. Evidence-based results for NAPs improved

NAP-Ag supported activities to promote shared understanding of the objectives, scope and approaches of M&E in adaptation in the agricultural sector. The Department of Agriculture opted to pursue the integration of adaptation in the M&E framework of the AFMP as the mechanism for the integrated M&E framework for adaptation in the agriculture sector. The support involved internal consultations to identify indicators and studies of biophysical and socio-economic risks and impacts of climate change on sardine fisheries and dependent livelihoods in the Philippines and implications for management and adaptation responses, aiming to influence targeted multi-stakeholders in the fisheries sector. The main outputs from this area include an M&E framework and plan for the DRRM-CCA infused AFMP and four reports consolidating the results of the studies on risks and vulnerabilities of sardine fisheries, as well as a workshop.

Outcome 4. Advocacy and knowledge sharing on NAPs promoted

NAP-Ag supported the establishment of a disaster risk reduction and management Operations Center (OpCen), a platform for sharing of critical information and coordinate response activities, connected to the information portals of PAGASA and FAO. The programme also supported the ASEAN Climate Resilience Network (ASEAN-CRN) Knowledge Exchange Event, among other knowledge sharing activities, and supported participation in national awareness events and exhibits on CCA. Knowledge products produced include an NAP-Ag case study in the Philippines, and knowledge materials on the synthesis of the Department of Agriculture AMIA (Adaptation and Mitigation Initiative in Agriculture) Programme.

3. Key Findings

The Terminal Report, the Synthesis Report and the Lessons Learned report of the NAP-Ag in the Philippines, in addition to many other reporting and monitoring documents, document very well the achievements of the NAP-Ag in the country, particularly the high-quality outputs. Knowledge products can be consulted in the NAP-Ag Knowledge tank. The focus of the findings below is to highlight outcomes that go beyond the sphere of control of the programme, i.e., further intended or non-intended advances influenced by the programme, but performed by its partners/other actors, that represent ownership and/or steps toward sustainability. There are other significant achievements by NAP-Ag in the Philippines that are well documented and therefore were not included in this review.

Incorporation and use of gender approach in adaptation planning in the subnational level

NAP-Ag supported a national workshop and three regional coaching sessions in the mainstreaming of gender considerations into adaptation planning for agriculture. The coaching sessions were attended by gender focal points and planning officers of Department of Agriculture Regional Field Offices, and by officers of selected LGUs. The sessions included topics such as i) integration of gender-related climate risks in planning, as they relate to agriculture livelihoods; ii) gender differences in adaptation

²⁶The NAP-Ag Programme, through the services of the Oscar M. Lopez Center, conducted the study in support of enabling the environment and natural resources sector to understand the risks and impacts of the Paris Agreement's lower limit target warming of 1.5 degrees Celsius to the natural ecosystems and biodiversity of the country. These risks and impacts in turn are foreseen to adversely impact the landscapes that support the agriculture sector.

needs, opportunities and capacities; iii) equitable participation of women and men in adaptation decision-making processes; iv) integration of gender considerations; and v) information and knowledge sharing. Gender aspects were already present in the NCCAP, and NAP-Ag built on existing capacities and model applications of gender mainstreaming among the participants, including these experiences in the NAP-Ag activities. As a result, regions requested additional one-on-one support from the programme to deepen exercises and coaching on some critical dimensions of the training, and inspired improvements in existing plans and ideas to improve future plans and budgets. In fact, in one of the regions (Department of Agriculture Regional Field Office 1), a gender focal point, reported that she has already integrated the content and technology learned in the workshop/coaching sessions in the dissemination done among the AMIA villages.

Improved institutional coordination

The first one reported is the improved coordination among the CCC and the Department of Agriculture. The CCC is the steer of the NCCAP and its components; it is a policymaking, independent and autonomous body that coordinates the country's climate change response. Activities promoted by NAP-Ag, for example workshops to prepare the study on integration of CCA and DRM in the updating of the AFMP 2018–2023 promoted increased knowledge and dialogue among the institutions. The CCC was better able to identify roles, responsibilities within the Department of Agriculture as well as monitoring information that the Department can provide through its national and regional offices, including the specific office that monitors and implements climate change projects. This allows for better collaboration among the agencies, which is critical for the implementation of the adaptation options proposed to be included in the AFMP. This outcome is acknowledged by both agencies and contributes to Outcome 1 of the NAP-Ag approach. For its further development and sustainability, partners express the will/need to have a strong technical working group institutionalized to avoid silos and improve CCA in agriculture.

The second one is the collaboration between PAGASA and the Department of Agriculture. A harmonization workshop supported by NAP-Ag in May 2018 to improve climate information services identified the need to establish protocols on data-sharing for the two organizations. Since September 2019, PAGASA and the Department of Agriculture are negotiating an MOU to share climate information data. By late 2020 the MOU had not been signed yet, but the data sharing was already happening. The data sharing is useful for the Department of Agriculture's operational activities, their field planning and office, in particular for the Department of Agriculture's regional offices, who have the mandate to provide information to local government units but did not have access to information generated by PAGASA. The collaboration will allow the Department of Agriculture regional offices to access information from PAGASA's regional services division. Ultimately, this strengthens the implementation of LCCAPs and thus of adaptation options at the local level.

Improved development of local climate change action plans and access to finance

To implement the NCCAP, local governments in the Philippines must design and implement LCCAPs. Standards were designed to help municipalities in the process. But the first submissions were of poor quality; many plans were not mature and did not make use of the climate projection or projections of impacts. Part of this lack of quality was related with how the questions were formulated (yes or no). NAP-Ag partnered with the CCC and the Rice Watch Action Network (RWAN) to conduct pilot seminar-workshops on quality assurance reviews of LCCAPs of LGUs and to conduct dialogue on the early implementation challenges of the Peoples' Survival Fund. Nineteen LGUs used the tool developed by RWAN to identify gaps in their LCCAPs, and the outputs of the dialogue were integrated in a policy paper to recommend changes in the Peoples' Survival Fund, to improve access to funds by LGUs. The policy paper was submitted to the Peoples' Survival Fund board, but by late 2020 there was not yet a resolution adopting the changes, due to bureaucratic issues. Ultimately, both measures are important: the quality assurance allows municipalities to assess their data gaps and update their LCCAPs. With

the LCCAPs approved, LGUs can apply to the Peoples' Survival Fund and the National Adaptation Fund to implement the plans. This contributes to the main objective of NAP-Ag.

Access to climate finance

NAP-Ag supported the preparation of two climate project proposals for submission to the GCF. A GCF Readiness Proposal on "Strengthening climate change adaptation planning in the water sector in the Philippines" was prepared by UNDP with focus on integration of CCA into the water sector and increasing of access to local and external funding. FAO prepared, with the Department of Agriculture, a full grant country proposal on "Adapting Philippine Agriculture to Climate Change" to scale-up climate resilient agriculture in the Philippines, allowing rural men and women in areas most vulnerable to climate change to successfully use climate information services, knowledge, and practices to adapt to impacts. NAP-Ag support included sending a representative of the Department of Agriculture to a GCF meeting in Bali. This was important to understand the requirements to develop proposals and establish connections, and to build capacity to develop the proposal with FAO. By late 2020 the proposals had not been submitted yet, waiting for incorporation of comments on the draft concept note, in spite of the expressed need of resources to implement the adaptation practices.

Integration of adaptation options in the environment and natural resources sector

NAP-Ag partnered with the Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation to conduct a study on the implications of the IPCC special report on the impact of global warming of 1.5 degrees Celsius to the plans and programmes of the Philippines' Department of Environment and Natural Resources. These risks and impacts are foreseen to adversely impact the landscapes that support the agriculture sector in the country. In November 2019, the study was presented to and well-received by the Department of Environment and Natural Resources Executive Committee and technical staff, that indicated adoption of proposed climate-responsive indicators, subject to further review of the Department's offices and the cooperation of the key units to come up with data requirements. The Department of Environment and Natural Resources also proposed to cascade the study to regional directors as well as to staff bureau directors.

In 2020, the results of the study were also presented to the Secretary of Environment and Natural Resources. These efforts resulted in an Administrative Order, deliberated in September 2020, incorporating the measures at all levels across the Department. The order was targeted to be issued by late 2020. The draft order includes guidelines on how to operationalize these activities; it is also expected that the order will be translated into appropriate budgeting. Staff from the Oscar M. Lopez Center informed that some measures were already being implemented even before the order.

Climate information services

The NAP-Ag programme supported the capacity building of PAGASA, to improve its climate forecast products and long-term climate projections, and this resulted in improved dissemination of weather forecasts also by Department of Agriculture regional offices. One of the focuses of the support was the enhancement of municipal level 10-day forecasts and seasonal climate forecasts. The 10-day forecast was a service that already existed, and that is crucial during planting and during operations such as fertilization and harvesting, particularly where there are no automatic weather stations. In May 2018, farmers were involved in workshops organized by PAGASA, Department of Agriculture regional offices and RWAN, and provided feedback on the climate information services that were already offered, allowing staff to better understand their perspectives and review dissemination strategies. Based on this feedback, Department of Agriculture officers started to disseminate the forecast by text message to over LGUs and to send the 10-day forecast every eight days, to allow for better planning. "PAGASA does the technical forecast, we have to translate that into useful information. This is now incorporated in our office, with that we trained our regional focal points in translating into the advisories, following the methodology created by our Department of Agriculture Regional Field Office 5" (Department of Agriculture officer, interview).

In addition, NAP-Ag supported the development of an application programme interface to improve access and usability of the climate information products for data displayed on PAGASA's webpage for the sub-module on "Climate Information for Agriculture". The application programme interface is a valuable tool for cross-platform access for farm weather forecasts and advisories. Based on this interface, in August 2018 PAGASA developed the mobile app "Payong PAGASA" that caters to farm weather forecast, regional agri-weather information, climate assessment and weather outlook.

NAP-Ag also supported an assessment of the agrometeorological and synoptic stations towards the upgrading, expansion requirements to increase agrometeorological forecast coverage to climate vulnerable areas. Research on the feasibility of 10-day solar radiation and 10-day surface wave height forecasting was also conducted. These are increasingly relevant for drought monitoring and coastal and marine safety, respectively. As a result of these assessments, and towards more long-term sustainability, PAGASA has included the establishment of strategic locations for new stations in its strategic planning and proposed the upgrading of at least 15 agro meteorological stations under its modernization programme to improve coverage and support for the agriculture sector. This was included in the GCF proposal prepared in partnership with FAO in July 2018.

Integration of CCA and DRR/M in the Agriculture and Fisheries Modernization Plan 2018-2023.

The AFMP now identifies 'increased adaptive capacities of farming and fishing communities and resilience of natural ecosystems' as one of three major sub-outcomes, with component strategies in both the national and regional levels. The AFMP is the agriculture and food security component of the overall National Climate Change Adaptation Plan.

The plan was finalized in June 2019; in August 2019 there was an important change in command with the Department of Agriculture, with a new undersecretary bringing a new vision, which incorporates resilience - in particular because of the pandemic - and industrialization as key focuses. The AFMP is being updated to become the National Agriculture and Fisheries Modernization and Industrialization Plan. According to informants, this will likely not change the CCA and DRR/M options incorporated in the plan, including gender specific aspects.

"The contents from the NAP-Ag were really valuable and we included the outcomes in resilience, sustainable ecosystem, resilient communities and so on. It is the starting point to the new NAP" (interviewee, Department of Agriculture).

NAP-Ag contributed to these advances by supporting an impact assessment on farm gate prices of rice and corn under different climate scenarios; M&E national/regional training workshops/writeshops focused on the AFMP; studies and research to inform the CCA and DRR/M options; and held workshop/dialogues on NAP-Ag "roadmap" development. In addition, the NAP-Ag roadmap was finalized in March 2020.

Support to nationally determined contributions

NAP-Ag supported the process of preparation of the Philippines' NDC submission to the Paris Agreement, per request of the Department of Agriculture and the CCC, aiming to an inclusive process, fostering ownership within and among agencies. NAP-Ag has provided technical assistance to developing a quantitative model (which includes, as applicable, the quantification of adaptation benefits, estimation of GHG abatement potential, and costs of each mitigation/adaptation option) as part of the finalization of the NDC technical process. The support generated 12 measures to be pledged as the Department of Agriculture contribution to the Philippine NDC in the form of technologies and practices, including use of biodigesters, solar powered pumps, bamboo plantations and others.

Studies to support green recovery after COVID-19

NAP-Ag was still active in the Philippines when the pandemic started, and by October 2020 the programme was preparing to conduct a rapid assessment to - among other objectives - gain a better understanding of the impact of COVID-19 on the agriculture sector and its linkage to underlying vulnerabilities, and map and document emerging adaptation measures during the pandemic, aiming

to offer entry points to support strengthening resilience of the sector and promote green recovery at national and local level.

4. Contextual factors that contributed to outcomes

Among the key-factors for the success of NAP-Ag in the Philippines were the partnerships crafted with governmental and non-governmental institutions specialized in climate and agriculture to develop trainings, studies and interventions. Institution such as RWAN, a civil society organization with a long history of engagement in the local level and the Oscar M. Lopez Center, with expertise in climate change. Outcomes and strategies of the project were influenced by the specific mandates of each institution, and outcomes are aligned with high-level targets. Most of the stakeholders interviewed in the country describe that the approach allowed for true collaboration and ownership, and that NAP-Ag, overall provided very good support for the partners engaged in the initiative. "Smooth" and "very fast response" were some of the terms used to refer to the collaboration with NAP-Ag in the Philippines.

"I've worked with [the government agency] many times. Even multi million dollars initiatives do not achieve results like this. This was a very small project, but it was very unique. We feel owners of this from negotiation to implementation." (Interviewee, research institution).

Other positive factors mentioned were:

- i. NAP-Ag work was demand driven and built upon existing solid plans, structures and initiatives, such as the NCCAP and its food security component, the AFMP, the CCC and the AMIA villages, among others.
- ii. Good timing: the programme started when policies and budget were being reviewed.
- iii. The Philippines governance structure: services are spread across the country and reach all levels, allowing for the quick translation of national level decisions, policies and so on, to be implemented at regional and local levels. This structure can be seen in organs such as the Department of Agriculture and PAGASA, and it was very important for the achievement of results.
- iv. There was leadership commitment to implement the programme, and some partners in the Philippines have contributed with their own resources.
- v. Previous relationship of work among partners (e.g., the Oscar M. Lopez Center with the Department of Environment and Natural Resources, RWAN and the Oscar M. Lopez Center with PAGASA and with Department of Agriculture regional and specialized units), which also contributed to increased understanding of processes, roles and capacities of the partners, increasing institutional coordination.
- vi. Government and non-government partners are acknowledged in their areas of expertise, in local, regional and national levels.
- vii. The coordination between UNDP and FAO worked very well, in spite of turn-over of coordination in both teams.
- viii. The previous relationship and work of FAO and UNDP in the Philippines, which generates trust with the governments and other partners.

Key-events that have influenced the project implementation, causing delays, included the El Niño phenomenon, change in leadership in the Department of Agriculture in various levels (System-Wide Climate Change Office in late 2017 and in the Department of Agriculture undersecretariat in August 2019); change in FAO and UNDP NAP-Ag Coordinators and end of support to parallel projects by CCC in February 2019.

5. Sustainability: prospects and challenges

Due to the approach adopted and other positive factors described above, the programme laid a good foundation for sustainability of its results. Factors out of control of NAP-Ag pose some question marks with regards to, in particular, submission of proposals for GCF (which were paralyzed until October 2020) and to the approval and further implementation of the updated AFMP (now National Agriculture and Fisheries Modernization and Industrialization Plan), which is the major outcome of the programme. During the last quarter of 2019, a change in leadership within the Department of Agriculture happened, with a new secretary assuming, who brought up a new vision for the plan. In late 2020, the AFMP was being reviewed. The stakeholders interviewed affirmed, however, that it is likely that the advances of the programme will remain in the new plan, considering also that the Department of Agriculture has requested FAO support to facilitate its review.

Interviewees stated that the GCF proposals are critical to obtain resources to implement and fully scale the adaptation options and practices identified by the programme, since the Philippines' regular budget is not enough.

6. Conclusions

NAP-Ag has made significant contributions for the planning process in the Philippines. Many of the outputs of the programme, such as evidence, publications and frameworks, are being used/implemented by the stakeholders at various levels, as it can be seen by the examples described above. It is worth noticing that in the Philippines the programme was able to influence change that is already cascading from national to regional and local levels. While the sustainability of its main output is still not certain (but likely, according to the informants), the approach guaranteed ownership of results, which is a firm step towards not only permanence of results, but also scaling.

Case study – Colombia

Introduction

This case study describes the experiences garnered and changes catalyzed by the implementation processes of the "Supporting developing countries to integrate the agricultural sectors in National Adaptation Plans" (UNFA/GLO/616/UND, UNDP PIMS 5246) [NAP-Ag] programme in Colombia. The programme was steered under the leadership of UNDP and FAO, and funded by the International Climate Initiative of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety. This case study is therefore a distillation of key informant interviews, online questionnaires and the desk review of documentation prepared by the programme in partnership with key stakeholders representing the public sector, private sector, small holder farmers and academia.

Colombia's efforts on climate change

In Colombia, the agricultural sector has been prioritized to improve its resilience to the increase of frequency and intensity of climate change associated dangers such as intense rainfall and flooding that have had direct impacts on agricultural land and livelihoods (PAHO & WHO, 2011). Accordingly, the National Development Plan (2010–2014) identified as a priority the design of a National Adaptation Plan to Climate Change (PNACC), which started in 2012 and included the agricultural sector due to its vulnerability and socio-economic relevance. Moreover, these events resulted in the issued Law 1523 of 2012, which adopted the national DRM policy and provided for the formulation of the National Risk Management Plan (PNGRD) for the period 2015–2025. Both the PNACC and the PNGRD are articulated to the same goal to reduce the risk of disasters and the effects associated with losses and damages in the agricultural sector. Also, in 2016, the National Climate Change Policy was approved.

The social and political context that the country was going through was also marked by the recent signing of the peace agreements between the Government of Colombia and the Revolutionary Armed Forces of Colombia (FARC) in November 2016, which marked a course for the end of an armed conflict of more than 50 years and the reconstruction of the territories most affected by violence. A comprehensive rural reform with criteria of sustainability and adaptation to climate change was included in the peace accords.

These systemic factors provided the institutional support and conditions to accelerate ambition on CCA and in 2017, the Government of Colombia decided to participate in the NAP-Ag programme to strengthen the comprehensive management of climate change in the agricultural sector. Consequently, NAP-Ag provided support for the development of an Integral Management Plan of Climate Change for the agricultural sector (PIGCC) for the next 12 years, where adaptation and mitigation components were addressed. The process of formulation of the PIGCC responded to guidelines and commitments of national and international order such as the NDC, the national policies related to climate change (Climate Change Law 1931/2018) and it was highly participatory. In consequence, the institutional capacity was considered when conforming the Technical Committee for the NAP-Ag programme, which in time provided the conditions to strengthen articulation between institutions with relevance to agricultural decision-making processes.

NAP-Ag's pathway of change in Colombia

The NAP-Ag focused principally on supporting Colombia on the pathways needed for the development of the PIGCC, which will guide the implementation of CCA measures in the agriculture sector. Supporting activities of this pathway included capacity building activities, exchanges of knowledge and workshops, vulnerability assessments, development of tools and piloting farming initiatives. In detail, the programme outcomes for Colombia are described below:

Outcome 1. Technical capacity and institutions of NAPs strengthened: A capacity building program with the aim to create and facilitate learning places. This included processes at national level (integrating gender in national adaptation planning, conceptualization of an M&E system and climate

risks and losses) and at territorial level (agro-climatic levelling for participants in the agro-climatic committees, capacity building for agroforestry cocoa pilot system).

Outcome 2. Integrated roadmaps for NAPs developed: The development of the PIGCC considered methodological elements presented in the supplementary guidelines for addressing agriculture, forestry and fisheries in national adaptation plans developed under the NAP-Ag program (FAO, 2017). The main achievements of this plan are the adoption of five strategic action areas that strengthen articulation towards CCA with a total of 16 measures.

Outcome 3. Evidence-based results for NAPs improved: In support of the development of the PIGCC and other national plans and programmes, vulnerability analysis studies were developed to identify critical correlations between risk and vulnerability variables for the agricultural sector. Also, an agroforestry cocoa pilot system was carried out to enhance adaptation of family farming.

Outcome 4. Advocacy and knowledge-sharing of NAPs promoted: Different instruments were created to enhance and promote CCA in the sector, including a platform for the exchange of adaptation experiences in the agricultural sector and a gender log to facilitate integrating gender in national adaptation planning.

Key findings

The pathway of change was not a linear process, it involved multiple activities contributing towards a same purpose: enabling conditions to increase the resilience of the agricultural sector. It involved concurrent streams of work and a multitude of stakeholders representing state and non-state actors involved at different levels in the agricultural sector. Major achievements registered to date in Colombia with support from NAP-Ag include:

- i. **The design and formulation of the PIGCC.** With support from the programme, the PIGCC was developed for the agricultural sector, including five strategic areas, 16 measures and an implementation strategy. The latter was designed including the national, regional and local levels, where the Agricultural Innovation Law and the new Agricultural Extension Strategy play a fundamental role to operationalize the PIGCC. Even though the PIGCC has been developed under the leadership of the Ministry of Agriculture, the plan is still pending legal adoption with a ministerial resolution for it to be mandatory. In addition, upon adoption, risks for implementation are subject to political interests and shifts and also short-term budget shortages due to the economic recession related to the COVID-19 pandemic.

In the process of the PIGCC, the adaptation dialogues were a pivotal participatory process for sharing and exchanging ideas and identifying adaptation strategies between state and non-state actors working in the agriculture sector. The sense of ownership by the Ministry of Agriculture and their improved climate change capacities were noticed during the adaptation dialogues, and finally evidenced at the program concluding workshop by entirely leading the process, only with technical support from the NAP-Ag team.

- ii. **Contribution to climate change knowledge.** Vulnerability and risk analyses were prioritized for the process of developing the PIGCC and to provide farmers with scientific based tools to better comprehend potential impacts of climate change on productive agriculture systems. These studies were used to identify indicators and a geodatabase with territorial expression for each municipality. This will allow to have up-to-date information and modelling systems that can better guide decision-making processes on territory. As a result, the Ministry of Agriculture is promoting the dynamic participation and use of risk and vulnerability analysis information in the territorializing route; for example, during the NAP-Ag workshops, an opportunity was provided to strengthen and provide feedback to the process of elaboration of the Integral Management Plan of Climate Change for the agricultural sector in the territories, on the department of Boyacá.

These studies will serve as base for the formulation of programmes for the implementation of PIGCC, for the incorporation of climate change aspects in the management plans of the production chains prioritized by the Ministry of Agriculture, and have also been a key input in the definition of the indicator of sustainable agriculture production. However, during the interviews the need to continue the institutional appropriation of these technical studies by relevant institutions such as local governments, municipalities, private sector, NGOs that use this information for decision making (for example, promote a communication and divulgation strategy of these studies) was stated.

- iii. **Contribution to CCA tools.** The intended publicly accessible information platform (for the exchange of adaptation experiences in the agriculture sector) will be fundamental in the adoption of knowledge regarding the PIGCC, as well as in the socialization of successful adaptation experiences that allow territorial governments to identify gaps and opportunities for CCA (for example, agro climatic bulletins). Due to its relevance, the Ministry of Agriculture has leveraged additional funding to incorporate mitigation ambition actions into this platform. Consequently, the platform will be hosted in the Ministry of Agriculture website, incorporating both adaptation and mitigation actions, and will be managed by them.

However, it has not been possible yet to complete the migration process to the entity's website, due to setbacks in the process to be carried out with the IT office of the Ministry due to the change in personnel during the transition of national government.

- iv. **Incorporation of gender approach in planning instruments.** Gender data (in the diagnosis phase) and an adaptation measure related to gender equality have been incorporated in the PIGCC. These are notable advances in the adaptation planning processes. Also, from the results of the workshop supported by NAP-Ag, guidelines for incorporating gender and CCA in the agriculture sector (Gender Blog) were developed. The Gender Blog includes eight steps and has been validated in the field by the FAO Gender team in Colombia and the Rural Women Office of the Ministry of Agriculture. This gender blog has been adopted and implemented by the sector in other programmes such as the Bio-carbon Fund, a programme proposal to present to the GCF that is being formulated with support from CAF and in the La Mojana programme financed by the GCF and implemented by UNDP.

- v. **Evidencing benefits of CCA measures – Agroforestry cocoa pilot system.** Considering the guidelines from the Ministry of Agriculture and the PNACC, the programme supported the design and implementation of an agroforestry cocoa pilot system adapted to climate with a cooperative of ex-combatants in alliance with the private sector, as an example of adaptation to climate change for small cocoa producers. This initiative represents an important opportunity for the economic inclusion of communities in the process of reincorporation of peasant communities affected by the armed conflict and climate change. Moreover, as part of the experience, the programme supported the establishment of a committee of cacao farmers to assure continuance and permanence of this activity. Positive results from this pilot have resulted in the replication of the experience in the zone with other organizations (community action boards, women's associations and cocoa producers) with the support of the Sustainable Communities Program that is developed jointly by the Administrative Department of Science, Technology and Innovation (Colciencias), the National University of Colombia, the Ministry of Science, Technology and Innovation and UNDP.

Also, the NAP-Ag contributed to ongoing processes and institutional capacity building activities needed to mainstream CCA in the agriculture sector. These included the following:

- i. **Enhanced inter-institutional coordination.** The NAP-Ag programme supported Colombia to take action to improve its communication and coordination between institutions with direct and indirect competencies on the agriculture sector, including better articulation between the Ministry of Agriculture, the Ministry of Environment and the National Planning Department (for

- example, conformation of the NAP-Ag Committee). An example of this is the incorporation of NAP-Ag results in the update of the NDC for the period 2020–2030 lead by the Ministry of Environment and presented by the President of Colombia during the Climate Ambition Summit in December 2020.
- ii. **Continuity of programs.** During the NAP-Ag final workshop, the Ministry of Agriculture reiterated its commitment to climate change management actions for the agriculture sector by implementing the PIGCC after its institutional approval. Examples of this are the regional and national agro-climatic technical committees, as information management mechanisms for decision-making that could help avoid losses of production systems. NAP-Ag supported an agro-climatic levelling course for participants in these regional agro-climatic committees. These committees are an opportunity to provide technical support to the territories in providing guidelines and data for the implementation of the PIGCC for the agricultural sector. There is an ongoing programme financed by the Ministry of Agriculture "Strengthening of decision-making for the protection of the agricultural sector through the timely generation of agro-climatic information" that aims to improve decision making process at the local level by using up to date agro-climatic information; however, budget restrictions have been noted by participants in questionnaires and interviews.
 - iii. **Collective support.** Colombia is part of the NDC partnership, which is a global initiative that helps countries to achieve their national climate commitments and ensure financial and technical support. As part of this coalition, Colombia as an NAP-Ag country, received additional resources in February 2020 from the NDC partnership for supporting activities (closure workshop) and strengthening of the NDC process. Moreover, this led for the consideration of the results of the NAP-Ag programme related to agriculture in the process of updating their NDCs for the period 2020–2030, which contributes for future implementation as they have anchorage to international commitments (UNFCCC) and cooperation initiatives (NDC partnership).
 - iv. **Synergy with other initiatives and programmes.** Currently the national representation of FAO is adding inputs generated from NAP-Ag to their country activities in Colombia. Also, processes such as the global Capacity Building Initiative for Transparency (CBIT) programme and Climate Action Enhancement Package (CAEP II) are articulating and incorporating results from the NAP-Ag programme and priorities of CCA for agriculture. Likewise, it provides inputs to local development programmes with a view to adaptation in programmes that involve DRM and strengthening of livelihoods.

Conclusions

The NAP-Ag programme has mainly helped Colombian institutions working on agriculture to be better equipped technically and organizationally to push forward the implementation of the PIGCC (still pending adoption). In addition, it remarkably addressed the need to implement pilot adaptation actions by directly participating in the design and implementation of adaptation measures with a group of farmers (agroforestry cocoa pilot), providing them with capacity building and guiding activities within an alliance with the private sector.

The initial process of incorporating gender into national planning instruments has shown preliminary results: inclusion of a specific gender measure in the PIGCC and a roadmap (Gender Blog) to mainstream gender in forthcoming national planning processes within the Ministry of Agriculture. At the local level, working with previous partnerships was fundamental to sustain results with the agroforestry cocoa pilot system, and it was equally important to promote new ones to open the process to more beneficiaries through the replication of the pilot programme in other areas.

Overall, success on moving forward on the formulation of the PIGCC responded to two main conditions, ownership of the PIGCC process by the Ministry of Agriculture and active stakeholders (farmers, private sector) and pre-existing regulatory frameworks and policies that will support the

implementation of CCA measures. In Colombia, ownership of the NAP-Ag process by the Ministry of Agriculture provided the means to enhance action on CCA in agriculture in the political agenda, as well as in other relevant institutions such as the Ministry of Environment and the National Planning Department, indistinctly of the shifting government terms. On the other hand, the pre-existing regulatory frameworks and policies brought political and financial stability to the process of the PIGCC; however, there is a need to consider potential political fluctuations that can slow down or even withdraw the attention to the process and to some of the NAP-Ag related products (information systems, Gender Blog, vulnerability geodatabase).

The sustainability of these changes needs political and financial support, especially regarding the pending institutional adoption of the PIGCC and its future public funding allocation.

Case study – Kenya

Introduction

This case study summarizes the experiences garnered and changes catalyzed by the implementation processes of the NAP-Ag programme in Kenya. It is a distillation of key informant interviews and a desk review of documentation prepared by the programme in partnership with key stakeholders representing the public sector, non-state actors, small holder farmers and academia.

Impact of climate change on agriculture in Kenya

In Kenya, climate change has manifested itself in extreme seasonal changes characterized with changing temperatures and rainfall patterns in varying severity (Kogo *et al.*, 2020). The changes have a track of negative impacts including the reduction in food production as well as an increase of poverty levels as a large part of the population relies on agriculture as a source of income. Additionally, the increase in GHG emissions and carbon dioxide (CO₂) footprint, has also affected agricultural production in the country. Thus far, Kenya has adopted a National Climate Change Action Plan, and various actions are being implemented to execute the ideas presented in this action plan, for example, the Climate Smart Agriculture (Government of Kenya, 2013).

NAP-Ag's pathway of change in Kenya

Objective: To integrate climate change concerns in associated national and sectoral planning and budgeting processes, as they affect agriculture sector-based livelihoods.

Outcomes:

Outcome 1. Technical capacity and institutions of NAPs strengthened. This involved building and strengthening the technical and institutional capacities of i) the public sector, which included the Ministry of Agriculture, Livestock and Fisheries; the Ministry of Environment and Forestry, the Ministry of Water and Irrigation, the Ministry of Devolution and Planning and the National Treasury; ii) state corporations, which included the Kenya Forestry Service and the National Environment Management Authority; and iii) research organizations, which included the Genetic Resource Research Institute, the Kenya Agricultural and Livestock Research Organization, and the Kenya Marine and Fisheries Research Institute. The programme adopted a step-wise approach towards developing national technical capacities and strengthening these institutions. This approach commenced with:

- i. **Capacity needs assessment** to i) identify key technical and functional capacity gaps on CCA planning which included policy and normative capacity, knowledge management capacity, partnering capacity and implementing capacity; ii) to develop a capacity development plan; and iii) to identify opportunities and entry points for strengthening the capacities of technical staff and public service officers which included a) the enabling environment; b) the organization; and c) the individual capacity.
- ii. **Trainings.** Based on the capacity needs assessments, the programme conducted trainings, which included i) CBA to enhance skills on the integration of measurement and valuation of natural capital into proposed climate adaptation interventions, through progressive techniques such as the Natural Capital Protocol (NCP); ii) integration of forestry into NAPs to equip forestry professionals with the requisite knowledge and skills on sustainable and climate-resilient forestry techniques and on enhanced integration of forestry in adaptation planning; iii) integration of gender issues in CCA planning for agriculture to enhance skills on mainstreaming gender issues in the planning design and implementation of CCA policies in the agriculture sector; and iv) climate-proofing of agriculture investment projects and knowledge and information management.

Outcome 2. Integrated roadmaps for NAPs developed. Through training workshops, consultations and connection of country adaptation projects to international sources of climate finance, the programme laid the groundwork to advance the integration of CCA into existing development policies

and strategies at the national and sub-national level in the agriculture sector to avoid parallel processes. To lay the foundation for future priority-setting and engagement between agriculture and other related sectors in order to ensure that climate-induced risks, vulnerabilities and opportunities are given due consideration, in national development plans and budgets, the programme developed the Kenya Climate Smart Agriculture Implementation Framework (KCSAIF) which served as the roadmap to guide implementation of various innovative and transformative initiatives to address challenges brought about by climate change.

Outcome 3. Evidence-based results for NAPs improved. The programme focused on contributing to evidence for adaptation in the agriculture sub-sectors to assist stakeholders to systematically learn about the effectiveness of adaptation options that they had prioritized. This evidence was informed by empirical research based on quasi-experimental design principles, strong economic foundations and identification of gender differentiated needs and adaptation options. The programme packaged this evidence in the form of case studies, training guides, assessments and newsletters.

Outcome 4. Advocacy and knowledge-sharing of NAPs promoted. The programme contributed to bringing together a knowledge base on National Adaptation Planning. This was done using various approaches that included i) development of case studies; ii) sharing lessons learned and best practices on the formulation and implementation of NAPs; iii) peer-to-peer exchange forums and webinars; and iv) participation in local, regional and international events such as the national climate change conferences, NAP Expos, SBSTA and COP sessions from the capacity building training programmes.

Key findings

The pathway of change was not a linear process. It involved concurrent streams of work and processes and a multitude of stakeholders representing diverse sectors, but all with tentacles in the agriculture sector. Some of the contributions of change by NAP-Ag in Kenya include:

- i. **Contribution to the body of climate action knowledge.** The programme developed knowledge products that provided fit for purpose solutions and step by step guidance on how to undertake various interventions. Examples include:
 - **Case studies**
 - a. Assessing agroforestry practice and soil and water conservation for CCA in Kenya: a CBA (FAO & UNDP, 2020d). This study analyzed the financial worthiness at farm level, and economic worthiness at national level of adaptation measures practiced by smallholder farmers, and sustainable water conservation. Using CBA, the study identified solutions, ranked and prioritized adaptation options according to their costs and benefits to society.
 - b. Assessing institutional barriers to NAP implementation in Kenya's agricultural sector with the aim of identifying the agricultural sector-related drivers and institutional barriers of implementation of the Kenya NAP, and define strategies to strengthen the institutional and regulatory frameworks for CCA planning.
 - c. Public expenditure analysis for climate change adaptation and mitigation in the agriculture sector. This study analyzed the proportion of public expenditure in support of the agriculture sector that have negative or positive effects on climate change adaptation and mitigation.
 - d. National adaptation case studies (FAO & UNDP, 2017b). These case studies described the steps taken to formulate and implement NAPs, with a particular emphasis on adaptation in agriculture (including forestry,

livestock and fisheries). The aim was to provide policy makers at the national and county levels with the knowledge on varying approaches, institutional arrangements and policy solutions for integrating agriculture into medium- to long-term planning and coordination for climate change action.

- **Assessments**
 - a. Assessment of the barriers towards integrating CCA planning within the agriculture sector to identify the agriculture sector-related drivers and institutional barriers of implementation of the Kenya NAP, and define strategies to strengthen the institutional and regulatory frameworks for CCA planning.
 - b. Approaches of vulnerability assessment in the agriculture sector to determine exposure, sensitivity and adaptive capacities.
- **Training curriculum/manual on climate change policy, planning and budgeting for county climate change coordination units.** To accelerate development and implementation of a low carbon climate resilient development pathway, the program through the NAP readiness project,²⁷ jointly with the Kenya School of Government (KSG, 2021) developed a climate change curriculum and training manual. The curriculum is used to train county officers in climate change units within the Ministry of Agriculture, the Ministry of Environment and Forestry, the Ministry of Water and Irrigation, the Ministry of Planning and National Development, the National Drought Management Authority and meteorological services who are involved in mainstreaming climate change into national and county policy, planning and budgeting processes, thus enhancing planning and effective implementation of climate adaptation in Kenya and promoting knowledge management, communication and advocacy to increase the evidence base for adaptation at both levels. The target was to train 500 county officers but due to the COVID-19 prevention measures, the programme only trained 338 officers.
- **Curriculum for journalists on climate change reporting.** Under the NAP readiness project, the programme developed a curriculum in response to the need for media professionals and practitioners to enhance their capacity in reporting on climate change related issues given the role the media plays as an important channel for education, information and early warning of impending hazards and adverse climatic conditions. The curriculum covers i) integrating/covering climate change related issues into day-to-day responsibilities; ii) fundamentals of climate change science and skill sets required to decipher climate change evidences, impacts, mitigation and adaptation response strategies; iii) climate change governance frameworks and global opinions on containing climate change; iv) telling climate change related stories; and v) economics of climate change, including financing mechanisms. Sixty-two journalists from 16 counties²⁸ have been trained.
- **Newsletter.** The programme launched a quarterly newsletter that provided updates to stakeholders on the programme's activities in the country. Information in the newsletter included case studies undertaken, trainings conducted, launch of

²⁷ The program secured funding of USD 3 million from GCF to upscale recommendations actions in the NAP.

²⁸ Baringo, Isiolo, Kajiado, Kakamega, Kericho, Kilifi, Kisumu, Kitui, Kwale, Turkana Machakos, Makeni, Marsabit, Mombasa, Nairobi, Nakuru.

complementary programmes, consultation workshops held and knowledge sharing forums where the programme was showcased (FAO & UNDP, 2016).

ii. Leveraged climate finance for adaptation planning and implementation.

- Using the lessons learned from the NAP-Ag programme, Kenya developed an NAP readiness proposal and secured funding from the GCF of USD 3 million. The readiness proposal will upscale the recommended actions in NAP, including i) developing the technical and institutional capacities for adaptation planning; ii) strengthening the knowledge base for NAPs; iii) integrating evidence-based results in adaptation plans; and iv) actively engaging private sector investment in adaptation options.

The programme also helped to secure USD 200 000 from UNITAR to strengthen human resources and skills to advance the NDC and the NAP. So far, this project has undertaken a mapping and validation on policies and initiatives on climate learning in Kenya to inform the development of the National Climate Change Learning Strategy (Ministry of Environment and Forestry of Kenya, 2020). It includes key stakeholders, their interests and role in the development of the learning strategy.

iii. **Development of ancillary products.** The programme advanced the development of ancillary products such as the:

- **Kenya Climate Smart Agriculture Implementation Framework (KCSAIF).** The KCSAIF served as the roadmap to guide implementation of various innovative and transformative initiatives to address challenges brought about by climate change. The adaptation options prioritized in the KCSAIF aimed to increase agricultural productivity and build resilience of the national agricultural systems leading up to a climate resilient and low carbon growth sustainable agriculture that ensures food security. The priority options were developed by a multi-disciplinary team comprising of crop, livestock, fisheries, meteorology, forestry and environment experts. Some of the adaptation options include i) management of climate risks in agriculture systems; ii) agro-ecosystem approaches; iii) efficient management of soil, nutrients, water and on-farm energy resources; iv) conservation and sustainable use of agro-genetic resources; v) sustainable intensification of crop, forage, agro-forestry, livestock and fisheries production; vi) efficient management of agricultural commodity value chains; and vii) opportunities for leveraging climate finance for CSA.
- **KCSAIF Monitoring and Evaluation Framework.** This framework provides a continuous and consistent systematic assessment of KCSAIF so that sufficient data and information is captured to review the progress and impact of KCSAIF. The M&E framework will help to determine whether the intended objectives of KCSAIF are achieved. It will also provide information that will help to learn from the experiences of KCSAIF implementation to help in future service delivery, allocate resources more efficiently and demonstrate results as part of accountability to key stakeholders.
- **Kenya CSA Strategy.** This strategy guides on the adaptation into climate change, how to build resilience of agriculture systems while minimizing emissions for enhanced food and nutritional security, and improved livelihoods. Its objectives are: i) to enhance the adaptive capacity and resilience of farmers, pastoralists and fisherfolk to the adverse impact of climate change; ii) develop mechanisms that minimize greenhouse

emissions from agriculture production systems; iii) create an enabling regulatory and institutional framework; and iv) address cross-cutting issues that adversely impact CSA.

- **Implementation status of the NAP readiness project.** The program targeted one county (Busia) that had developed a climate risk profile and prioritized CSA in their CIDP by training its county officers. Those responsible for domestication of national policies and projects were sensitized on the KCSAIF, while the technical staff who are the direct implementers of community activities were trained on the CSA strategy. The training resulted in two mappings of ongoing projects and initiatives at county levels and in an action plan with prioritized CSA activities.
- iv. **Establishment of the Climate Business Information Network.** Through the support of the NAP readiness project, the programme established the Climate Business Information Network (CBIN), a collaborative platform for engaging private sector entities that integrate climate change in their business models, finance and technical support. The platform was established to i) maintain an effective and efficient institutional arrangement for mainstreaming climate change responses within the private sector, ii) to promote coordinated and inclusive implementation of the NCCAP by private sector actors; and iii) to catalyse private sector investments in low carbon and climate resilient development. To date, 25 private companies have registered their interest for capacity building on effects of climate change on value chains sensitization workshops.
- v. **Establishment of the Center for Climate Change and Mitigation.** This was established at the Kenya School of Government through the support of the NAP readiness project. The main objective of the centre is to strengthen the capacity of public service, private sector and civil society organizations, locally, nationally and regionally on effective implementation of climate change and environment related programs, and enable effective adaptation to climate change.

Lessons learned

Upstream propositions. The nature of interventions was upstream geared towards influencing policies, planning and financing statutory strategies, and institutional strengthening. From experience, this takes a long time to formulate and manifest, respectively, and the policy integration cycle is not always aligned to the programme timeframe. It is therefore important to determine which upstream activities can realistically be achieved in the shelf-life of the programme and the pliability of relevant institutional structures and systems where traction can be quickly gained.

Cross border initiatives. The programme did not integrate any cross-border initiatives with its neighbouring countries despite having interventions in the Karamoja area in Northern Uganda, which shares a border with Turkana in Kenya. The cross-border initiatives would have been very appropriate in such locations where the borders are imaginary, but the people and their livelihoods and livestock interact freely. To achieve a critical mass of change in such locations, it would have been beneficial if the two countries were able to jointly prioritize the proposed climate adaptation options so that the net aggregate achievement from one side of the border was not reduced by the lack of interventions on the other side of the border.

Anchorage on existing national climate change commitments, policies and initiatives. At the time of launching the programme, Kenya had a well-established inter-sectoral coordination mechanism for the NAP process which comprised of the NAP Thematic Working Group and the Cross-Sectoral National Adaptation Coordination Committee. Anchorage on these existing mechanisms assured the programme national relevance, ownership and an institutional foundation which facilitated the traction of inclusion in the national planning processes, thereby ensuring sustainability beyond the programme's funding period, helping raise the profile of the programme by ensuring that the climate

change focal point at the Ministry of Agriculture was also a member of the programme's project steering committee.

Inclusive vertical integration. Agriculture is a devolved function in the Kenyan governance system, where policy is the function of the national government, while implementation is undertaken at county level. The programme recognized the gap in county-level capacity and targeted them for training to strengthen their capacities in the development of climate change responsive CIDPs whose implementation would reduce communities' vulnerability to climate change by strengthening their resilience through climate smart agriculture.

Conclusions

Upstream propositions. The design of this programme was seed funding for upstream interventions that were geared towards influencing policies, planning and financing statutory strategies, and institutional strengthening. This denied the programme the opportunity of an exploratory or pilot phase to implement innovative downstream activities that would inform policies, strategies, and alternative institutional systems and processes, which are cardinal for effective implementation and sustainability.

Foundational results. The design of the programme was intended to establish foundational catalytic processes that are intrinsic to achieving adequate scale and momentum towards reducing the contribution of agriculture and food systems to vulnerability towards climate change through the integration of adaptation and mitigation strategies into development planning. In this regard, the programme achievements were not transformational, but rather catalytic or instrumental.

Division of labour. Although there was a clear division of labour between FAO and UNDP which enabled them to effectively deliver on their assigned responsibilities, the division of labour was still around upstream activities, such as development of the KCSAIF, the Kenya Climate Smart Agriculture strategy and the KCSAIF M&E framework. Perhaps to test the efficacy of the proposals in the upstream activities, it may have been prudent for the programme design to consider specialization and comparative advantage where FAO would have concentrated on downstream activities that would have fed into UNDP upstream activities. These activities would have been piloted from those proposed in the KCSAIF, for example to establish and expand strategic feed/grazing reserves, integrate the water needs of livestock and fish in all new irrigation designs, or conserve riparian area with the aim of controlling invasive species.

Case study - Uganda

Introduction

This case study distills the experiences garnered and changes catalyzed by the implementation processes of the NAP-Ag programme in Uganda. The case study is therefore a distillation of key informant interviews and a desk review of documentation prepared by the project in partnership with key stakeholders representing the public sector, non-state actors, small holder farmers and academia.

Impact of climate change on agriculture in Uganda

Climate change in Uganda manifests as landslides, floods, droughts, among other diverse conditions greatly affecting agriculture in the region (FAO, 2020b). In Uganda, the efforts to increase resilience to climate change has been greatly barred by the existing gender gap, with 77 percent of farmers being women, yet only 28 percent own agricultural land, hence most do not hold the decision-making power on production benefits (FAO, 2019). Efforts to give this power back to women is required to ensure sustainable growth of the agriculture sector, especially taking into account climate change.

NAP-Ag programme in Uganda

The implementation of NAP-Ag in Uganda was guided by a roadmap that was customized from the UNFCCC. Its development rode on existing:

- i. policies such as the National Climate Change Policy (2013), the National Irrigation Policy (2017), the National Land Policy (2013), the National Agriculture Policy (2013), the Disaster Preparedness and Management Policy (2010) and the National Coffee Policy (2013);
- ii. projects such as the Agricultural Adaptation to Climate Change in the Central Cattle Corridor, the Ecosystem-based Approaches to Adaptation and the National Adaptation Programme of Action;
- iii. institutions such as the Climate Change Department in the Ministry of Water and Environment and the Climate Change Task Force in the Ministry of Agriculture, Animal Industry and Fisheries; and
- iv. Acts of Parliament such as the Uganda Meteorology Act and the National Environment Act.

The implementation involved a consultative process with stakeholders at national, sub-national and community level. The NAP-Ag serves as Uganda's first comprehensive plan for climate action in the agriculture sector and guides the adaptation planning and options in the country. It presents 21 priority adaptation options in eight key areas of crop production, livestock production, fisheries management, climate information, early warning and disaster preparedness systems, forestry, land and natural resources management, research and climate resilient agricultural development, knowledge management and partnerships for climate action, and gendered approaches to CCA.

NAP-Ag's pathway of change in Uganda

Project objective: To integrate climate change concerns in associated national and sectoral planning and budgeting processes, as they affect agriculture sector-based livelihoods.

Project outcomes:

Outcome 1. Technical capacity and institutions of NAPs strengthened. This involved building and strengthening the technical and institutional capacities of i) the public sector, which included the Ministry of Agriculture, Animal Industry and Fisheries, the Ministry of Energy and Mineral Development, the Ministry of Water and Environment, the Ministry of Finance, Planning and Economic Development, the Ministry of Lands, Housing and Urban Development, the Ministry of Local Government and the Ministry of Gender, Labor and Social Development; ii) the Legislative arm of Government which included Members of Parliament serving on the Parliamentary Forum on Climate Change; iii) academia, such as Makerere and Butisema University; iv) state corporations which included coffee and dairy

development authorities; v) apex associations, such as the Uganda Farmers Federation; and vi) research institutions, such as the National Agricultural Research Organization. The programme adopted a step-wise approach towards developing national technical capacities and strengthening these institutions. This approach commenced with:

- i. **Capacity needs assessment** to i) identify key technical and functional capacity gaps on climate change adaptation planning, which included policy and normative capacities, implementing capacities and knowledge management capacities; ii) guide training on gender responsive policy development, planning and budgeting and for DRR; and iii) guide the development of appropriate training materials.
- ii. **Trainings.** Based on the capacity needs assessment, the programme conducted trainings which included i) training technical staff at local and central government levels on approaches for mainstreaming gender responsive CCA in policies, plans and budgets; ii) training on CBA as a tool that can guide the appraisal and prioritization of adaptation options; iii) training on data entry, analysis and maintaining of the DesInventar information for DRR to strengthen the assessment of climate change-induced damage and loss in the agriculture sector; iv) training on impact evaluation to strengthen the capacity on how to assess the performance and effectiveness of adaptation-related programs and policies; v) training on gender responsive planning, budgeting and policy development; and vi) training on vulnerability assessment in climate change.

Outcome 2. Integrated roadmaps for NAPs developed. Through training workshops, consultations and connection of country adaptation projects to international sources of climate finance, the programme laid the groundwork to advance the integration of CCA into existing development policies and strategies at the national and sub-national level in the agriculture sector. To lay the foundation for future priority-setting and engagement between agriculture and other related sectors in order to ensure that climate risks, vulnerabilities and opportunities are given due consideration in national development plans and budgets, the programme developed the NAP-Ag, which served as the roadmap to guide implementation of various innovative and transformative initiatives to address challenges brought about by climate change. The goal of the NAP-Ag is to increase resilience of the agriculture sector to the impacts of climate change through coordinated interventions that enhance sustainable agriculture, food and nutritional security, livelihood improvement and sustainable development.

Outcome 3. Evidence-based results for NAPs improved. The programme contributed as evidence for adaptation in the agriculture sector to assist stakeholders to systematically learn about the effectiveness of adaptation options that they had prioritized. This evidence was informed by empirical research based on quasi-experimental design principles, identification of gender differentiated needs and adaptation options. This evidence was contained in case studies, training guides, assessments and fact sheets that were generated by the programme.

Outcome 4. Advocacy and knowledge-sharing of NAPs promoted. The programme contributed to bringing together a knowledge base on NAP. This was done using various approaches that included i) development of case studies; ii) sharing lessons learned and best practices on the formulation and implementation of NAPs; iii) peer-to-peer exchange forums and webinars; and iv) participation in local, regional and international events such as the national climate change conferences, NAP Expos, SBSTA and COP sessions from the capacity building training programs.

Key Findings

The pathway of change was not a linear process. It involved concurrent streams of work and processes and a multitude of stakeholders representing diverse sectors, but all with tentacles in the agriculture sector. Some of the contributions of change by NAP-Ag include:

1. Replication of promising practices.

Other sector NAPs. Following the completion and launch of Uganda's National Adaptation Plan for the Agriculture Sector in 2018, the programme instigated the prioritization of the development of a framework by related ministries of water and environment to develop a framework that will guide other sectors affected by climate change to develop their sector-specific NAPs. The development of these sector NAPs is informed by the lessons learned in the development of the NAP-Ag.

Institutionalization into national instruments. Drawing from lessons learned in the development of the NAP-Ag, the NPA developed a thematic paper for integrating climate change concerns in the 3rd National Development Plan (NDP) for 2020–2025 (National Planning Authority of Uganda, 2020). This thematic paper proposed adaptation and mitigation actions for climate proofing a range of different sectors such as water, energy, health and tourism, aiming to ensure that climate change concerns and adaptation actions for the respective sectors are included in the NDP. The NDP is Uganda's national blueprint that defines the broad direction for the country and sets key objectives and targets for the sustainable socioeconomic transformation of the country. Inclusion of climate change concerns in the NDP will ensure inclusion in national planning and budget priorities.

Integration in statutory processes. The NAP-Ag has been incorporated in national statutory processes that support the implementation of national climate change priorities. Climate change concerns have been integrated as national cross-cutting priorities in national budgets (Republic of Uganda, 2019). This budget call circular requires that all work plans and associated budgets support the effective implementation of cross-sectoral investments, which include climate change issues. This increases the sustainability and resource allocation for climate adaptation actions.

Collective support. Uganda is part of the NDC partnership.²⁹ As part of this coalition, Uganda leveraged this initiative to include four main areas of support in the NDC partnership workplan. These areas of support were identified and prioritized under the NAP-Ag programme: i) strengthened policy and institutional frameworks for climate change governance; ii) effective Measurement, Reporting and Verification (MRV) systems for GHG monitoring and gender-responsive adaptation; iii) capacity strengthening for stakeholders for integrating NDC commitments and SDGs; and iv) resource mobilization for NDC implementation.

2. Contribution to the body of climate action knowledge.

The project facilitated the establishment of a taskforce and codification of its functions through the Ministry of Agriculture, Animal Industry and Fisheries' Agriculture Climate Change Coordination Unit. This will result in the institutionalization and sustainability of the key actions into the Ministry's planning cycle whose priorities are funded by the national government through the regular national budgetary processes. Other members of the task force comprised of representatives from the Ministry of Water and Environment, the Ministry of Finance Planning and Economic Development and representatives from the Uganda Coffee Development Authority, Dairy Development Authority and the National Agricultural Research Organization. Using this task force as a knowledge sharing platform, the project distilled the lessons learned from development of the NAP-Ag process to develop information sessions and fact sheets for stakeholders. Other information products were in the form of videos that sought to raise awareness on the integration of the agriculture sector in NAPs (FAO, 2016).

3. Contribution to the development of tools.

The process of developing the NAP-Ag underwent a series of iterative validation processes where priority themes were identified by various stakeholders. Through this process, the project enabled the development of i) the gender capacity development strategy which enabled decision makers

²⁹ The NDC partnership is a global initiative and coalition of governments and international institutions that help countries to achieve their national climate commitments and ensure financial and technical assistance is delivered as efficiently as possible.

appreciate how climate change affects gender disproportionately - this strategy was subsequently celebrated through a launch that involved the public and the development sector; ii) guidelines for mainstreaming climate change into agriculture sector plans that is estimated to cost about USD 522 million over a five-year period; iii) a performance monitoring and evaluation framework (PMEF) for the NAP-Ag which was aligned to the existing monitoring mechanisms in the National Climate Change policy - this included the development of baseline indicators for monitoring the progress of the plan's implementation; and iv) a technology adoption plan for the fisheries and aquaculture sector to appreciate the impact of climate change vulnerability in the sector.

4. Leveraged pipeline funding.

FAO Uganda's TCP proposal is currently a pipeline project that is awaiting financing by October 2020. Additionally, UNDP Uganda has also utilized the lessons learned from the process of the NAP-Ag developed to write two grant proposals that seek to i) enhance the dissemination of early warning information for farmers for the seasons; and ii) to enhance promotion of weather-based index insurance for the farmers. This is viewed as an adaptation strategy to extend risk to other players. These two proposals are also in the pipeline awaiting funding. Grant proposals that sought to operationalize implementation of the NAP-Ag were developed.

Conclusions

Upstream propositions. The nature of interventions were upstream, geared towards influencing policies, planning and financing statutory strategies, and institutional strengthening. From experience, this takes a long time to formulate and manifest, respectively, and the policy integration cycle is not always aligned to the project timeframe. It is therefore important to determine which upstream activities can realistically be achieved in the shelf-life of the project, and the pliability of relevant institutional structures and systems where traction can be quickly gained.

Gender mainstreaming. The project did not successfully mainstream gender into its activities. Although there were deliberate attempts to include women participants in project activities such as trainings and dialogues in the development of the roadmaps, there is no evidence that gender concerns were integrated into adaptation options.

Foundational results. The design of the project was intended to establish foundational catalytic processes that are intrinsic to achieving adequate scale and momentum towards reducing the contribution of agriculture and food systems to vulnerability towards climate change through the integration of adaptation and mitigation strategies into development planning. In this regard, the project achievements were not transformational, but rather catalytic or instrumental.

Learning and adaptation. With the exception of the global fora that was held at UNFCCC to report on progress, share experiences and lessons learned, there was no evidence of a similar mechanism at national level that convened regularly to help stakeholders to become nimbler, knowledge-driven and responsive as the project evolved. These forums could have provided the stakeholders to understand the causal pathway to the desired project outcomes and would have been used as an opportunity to continuously assess and adjust project progress to yield effective course correction as appropriate.

Ambitious timeframe. The process of integrating CCA concerns into national development planning processes is lengthy, which sometimes is iterative in nature, therefore not linear. With national competing priorities and resources, it was quite ambitious for the project to expect that these climate change concerns would have been integrated into national planning processes within the project's timeframe.

Youth-inclusive adaptation options. There was a paucity of youth-inclusive climate adaptation options. There was a lack of proposals in the NAP-Ag to remove barriers that prevent or diminish youth participation in climate-resilient agriculture such as access to land, farm inputs and insurance.

Division of labor. Although there was a clear division of labor between FAO and UNDP which enabled them to effectively deliver on their assigned responsibilities, the division of labor was still around upstream activities. Perhaps to test the efficacy of the proposals in the upstream activities, it may have been prudent for the project design to consider specialization and comparative advantage where FAO would have concentrated on downstream activities that would have fed into UNDP upstream activities.

Annexes

Annex 1. Terms of reference

<http://www.fao.org/3/cb4485en/cb4485en.pdf>

Annex 2. Evaluation matrix

<http://www.fao.org/3/cb4487en/cb4487en.pdf>

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