

# Evaluation of the project "Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa"

**Project Evaluation Series  
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**Evaluation of the project  
“Restoring subsistence and commercial  
agriculture in tribal districts,  
Khyber Pakhtunkhwa”**

**Project code: GCP/PAK/138/USA**

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## Abstract

The Khyber Pakhtunkhwa Newly Merged Districts (NMDs) remain one of the most impoverished regions of Pakistan. Economic activity in the NMDs is dominated by subsistence agriculture and livestock rearing which provides livelihoods to about 97 percent of the population. Prolonged conflict and the resulting displacement of the local population has caused damages and losses to agriculture land and irrigation structures as well as livestock populations and animal shelters. Following the military clearance in 2015, displaced families have begun returning to their homes.

To undertake the early restoration of agriculture-based livelihoods in the NMDs, the project for “Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa” was launched in January 2017 with a total budget of USD 10 million. The project was funded by the United States Agency for International Development (USAID) and implemented by the Food and Agriculture Organization of the United Nations (FAO) in North Waziristan, South Waziristan, Khyber and Orakzai districts supporting about 42 763 households. The overarching aim of the project was to make a significant contribution to stabilization of the area and reduce poverty and economic inequalities through sustainable agriculture development in the tribal districts of Khyber Pakhtunkhwa.

The final evaluation of the project assessed the project’s design, its achievements vis-à-vis its objectives, its impact, and its success areas, gaps, and lessons learned through a mixed-methods approach combining in-depth analysis of project documents with direct observations in the field, key informant interviews, in-depth interviews and focus group discussions. The evaluation found that the project was successful in meeting or nearly meeting most of the output targets set out, including i) provision of improved/climate-resilient seeds to 25 500 households; ii) vaccination and deworming of 63 210 animals; iii) providing 12 200 doses of sexed semen; iv) rehabilitation of 50 damaged broiler farms; v) land rehabilitation of 1 000 acres; vi) rehabilitating 33 irrigation schemes; vii) establishing 175 tunnel farms and 105 small vegetable enterprises; viii) establishing three livestock markets and five packing sheds; and ix) establishing 1 000 fruit orchards.

Overall, the evaluation team found the project design to be sound. The theory of change (TOC) is based on clearly articulated causal linkages between individual interventions and the planned objective. However, the project lacked gender-focused interventions. The project also faced delays throughout implementation which were further exacerbated by the COVID-19 pandemic.

Recommendations for future projects include a review of procurement processes to minimize delays, ensuring the sustainability of rehabilitated schemes through well-designed management and operations and maintenance plans, strengthening producer marketing groups as part of value chain development, setting gender-disaggregated activity targets and linking interventions with broader outcomes for women beneficiaries, and revising reporting formats for effective monitoring and evaluation (M&E).



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## **Abbreviations and acronyms**

|       |   |
|-------|---|
| AI    | Artificial Insemination                                 |
| CBO   | Community-based organization                            |
| FAO   | Food and Agriculture Organization of the United Nations |
| FATA  | Federally Administrated Tribal Areas                    |
| FFS   | Famer field school                                      |
| KII   | Key informant interview                                 |
| LOA   | Letter of agreement                                     |
| M&E   | Monitoring and evaluation                               |
| NMD   | Newly Merged District                                   |
| PMGs  | Producer marketing groups                               |
| TDP   | Temporarily displaced people                            |
| USAID | United States Agency for International Development      |
| VO    | Village organization                                    |
| WOS   | Women open school                                       |

## Executive summary

1. This report provides the evaluation results for the project “Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa” (GCP/PAK/138/USA), implemented by the Food and Agriculture Organization of the United Nations (FAO). The project started in January 2017 and has been extended until September 30, 2021. Funded by the United States Agency for International Development (USAID), the total approved budget of the project is of USD 10 million.
2. The project has assisted 42,763 households in the four selected districts: Khyber, Orakzai, North Waziristan and South Waziristan, by primarily focusing on the families that returned in 2015 and 2016. FAO directly implemented the project in collaboration with government departments and community organizations.
3. The project’s overall objective is “To make a significant contribution to stabilization of the area, reducing poverty and economic inequalities through sustainable agriculture development in tribal districts of Khyber Pakhtunkhwa” which is achieved through the following two outcomes, i) resumption of food production and restoration and improvement of agriculture-based livelihoods in target areas, and ii) restoration or establishment of market structures and services.
4. The final evaluation assesses the implementation period of the project from July 2017 to March 2021 as a cut-off date. The evaluation has covered all key activities undertaken within the framework of the project as described in the project document where focus was on outcome- and output- level results.

## Key findings

### Project design, approach and relevance

5. In terms of alignment with the government’s priorities, the project supports the Khyber Pakhtunkhwa tribal districts’ Sustainable Return and Rehabilitation Strategy 2015/2016 (SRRS) and complements the overall sector development and stabilization during a four-year period. More specifically, the project is also aligned with the Agriculture Action Plan of Khyber Pakhtunkhwa tribal districts, which was prepared by the Newly Merged Districts (NMDs) Secretariat with the assistance of FAO and approved by the Governor of Khyber Pakhtunkhwa in 2015.
6. Overall, the evaluation team found the project design to be sound. The theory of change (TOC) is based on clearly articulated causal linkages between individual interventions and the planned objective of the project i.e. “to make a significant contribution to stabilization of the area, reducing poverty and economic inequalities through sustainable agriculture development in tribal districts of Khyber Pakhtunkhwa.” While multiple interventions are intended to support beneficiaries at household level, the evaluation team however made a serious observation regarding the lack of gender-focused interventions<sup>1</sup> as well as gender-segregated targets in the project design.
7. Since its inception, the project has experienced several delays. In addition to start-up delays, multiple interventions were affected due to FAO’s internal procurement, intermittent security incidents, and logistics procedures (discussed in detail in the section on effectiveness). Moreover, although FAO continued implementation during COVID-19, the project’s supply chain was severely affected due to extended country-wide lockdowns creating hindrances in procurement

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<sup>1</sup> With the exception of poultry packages, the project does not have any other women-focused interventions.

and delivery of goods. Despite these limitations, the project continued implementation of key interventions such as provision of crop inputs to reduce vulnerabilities among the beneficiaries.

8. In terms of staffing, the evaluation team found the field staff to be particularly understaffed, a concern which was also shared by the project management. In addition to being understaffed, there are also concerns that the field staff did not receive adequate training before being deployed in the field.

## **Effectiveness, impact and sustainability**

### **Output 1.1. The agriculture production (crops, livestock, and poultry) of the beneficiaries has been restored and improved in the return areas.**

9. Improved quality wheat, maize, vegetables, and fodder seeds were distributed by the project among the beneficiaries to resume crop production. The wheat package yielded positive results, as beneficiaries during the field mission reported a 30-40 percent increase in the average yield. The positive results were largely attributed to the integrated approach by FAO including rehabilitated watercourses, orientations through farmer field schools (FFS), and high-quality seed. Conversely, the maize package did not yield the expected results. Beneficiaries across target districts reported maize yields between 9 to 11 maunds per acre, which barely cover the household food security needs beyond a few months.
10. The project implemented several interventions to support the livestock sector in the NMDs. Some of the key activities included provision of poultry packages to women beneficiaries, rehabilitation of small-scale broiler farms, livestock breed improvement through artificial insemination (AI) of imported sexed semen, and vaccination and de-worming of animals. During discussions with the Livestock and Dairy Development Department, the livestock breed improvement and vaccination and de-worming interventions were highly appreciated by the department for their effectiveness. According to the final report submitted by the Livestock and Dairy Development Department, an overall conception rate of 34.7 percent was recorded after administering 12 000 doses across the target districts. Similarly, the timely administered vaccination campaign prevented the outbreak of disease in the target districts.

### **Output 1.2. Productive assets of the beneficiaries have been restored/rehabilitated/protected in the return areas.**

11. To enhance the agricultural productivity of recipient communities in the target NMDs, the project rehabilitated 1 000 acres of land in North and South Waziristan. In addition, the project also rehabilitated 33 irrigation schemes with a total command area of 3 903 acres benefitting 6 342 households. The rehabilitated schemes are expected to accrue major benefits to farmers including reduced conveyance losses, fewer water disputes among farmers, sufficient water for tail end farmers, and reduced irrigation time. In many cases, the improved watercourses are also expected to bring new area under cultivation and increase the agricultural land value in the target NMDs.

### **Output 2.1. Agricultural enterprises established and strengthened.**

12. To promote sustainable and profitable agriculture enterprises, FAO implemented several interventions. Key interventions among these included:
  - i. Installation of 75 walk-in tunnels and 100 high tunnels with drip irrigation system in the target districts. It is worth noting that FAO has been duly credited with introducing tunnel farming in the NMDs for the very first time, an intervention highly appreciated by beneficiaries and other key stakeholders alike.

- ii. In the NMDs, fruit plant nurseries are non-existent resulting in lack of availability of good quality/certified fruit plants to farmers in local markets (FAO, 2019b). To address this gap, FAO established 15 fruit plant nurseries and provided training to the owners on improved nursery management practices, enterprise development, and registration with the Federal Seed Certification and Registration Department (FSCRD) to ensure future sustainability (FAO, 2019b).
  - iii. FAO assisted in establishing/developing 1 000 orchards (one acre each) in the target NMDs by distributing 305 153 saplings of different fruit trees as shown in Table 14. On average, each beneficiary received 80-100 saplings per acre of different fruit trees.
  - iv. To strengthen livestock enterprises, the project identified 50 small-scale broiler farms for rehabilitation. In addition to the rehabilitation works, the project had also planned to provide 1 000-day old chicks, poultry kits, and poultry feed to the broiler farm owners. However, due to procurement-related issues, the supply of day-old chicks has been delayed extensively.
13. In addition to the above, the project also helped establish model milk sale points and meat sale points.

**Output 2.2. Market structures and services strengthened, including facilities for value addition, productive skills of beneficiaries and institutional capacity of government and private agriculture service providers enhanced, farmers' access to information expanded.**

14. To strengthen the existing market structures, FAO identified three livestock markets and 5 cluster-based packing sheds/collection centers for improved service delivery. In addition, the project also assisted the recipient communities in formation of market committees with representation from the concerned markets. During the evaluation mission, the team visited the livestock, and fruit and vegetable markets in Bara, Khyber and noted visible improvements to the existing infrastructure as well as construction of newly built structures. However, based on discussions with the market committee members, the evaluation team noted extensive need for further capacity building support in order to make these groups sustainable.
15. In parallel, the project identified five potential commodities (apple, pine nuts, potato, tomato and livestock) for value chain development in the target districts. Support to the value chains was provided at three levels including production, post harvesting and marketing. In addition, the project also formed 105 producer marketing groups (PMGs) from representative clusters. However, during the evaluation mission's meeting with PMG (tomatoes) members in Khyber, the mission found the PMGs to be rather weak and in need of extensive capacity building support.

## Conclusions

**Conclusion 1.** Supply of inputs to beneficiaries faced extensive delays and setbacks and delivery of some packages remains incomplete.

**Conclusion 2.** The FAO's interventions contributed to successful rehabilitation of irrigation schemes, laying foundations for increased land productivity. At the same time, sustainability of these schemes is not ensured due to the absence of operation and maintenance plans and responsible local associations.

**Conclusion 3.** Gender-focused interventions have received very limited attention in the project design and low priority during implementation.

**Conclusion 4.** Due to the project's continued support, farmers are showing steady progress towards strengthening individual enterprises. However, their capacity to operate as PMGs across various value chains remain weak.

**Conclusion 5.** The current reporting format of quarterly progress reports limits the project's ability to track the progress of individual activities in a succinct manner.

## Recommendations

**Recommendation 1.** To minimize procurement-related delays, the FAO needs to continuously refine its procurement strategies and approaches.

**Recommendation 2.** To ensure long-term sustainability, the project's irrigation rehabilitation schemes need to be supported by well-designed management, operation and maintenance systems that promote efficiency gains and sustainability of the irrigation networks.

**Recommendation 3.** The project team should develop targeted interventions that take into account gender-related inequalities, particularly in the areas of improving nutrition and enhancing livelihood opportunities among the female beneficiaries.

**Recommendation 4.** Capacity building is a key to ensuring the effectiveness of PMGs.

**Recommendation 5.** There is a need to review formats of project progress reporting.

# 1. Introduction

1. This report provides evaluation results for the project “Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa” (GCP/PAK/138/USA), implemented by the Food and Agriculture Organization of the United Nations (FAO) in Khyber, Orakzai, North Waziristan and South Waziristan districts of Khyber Pakhtunkhwa. The project started in January 2017 and has been extended until 30 September 2021. Funded by the United States Agency for International Development (USAID), the total approved budget of the project is of USD 10 million.
2. The project has assisted 42 763 households in the four selected districts: Khyber, Orakzai, North Waziristan and South Waziristan, by primarily focusing on the families that returned in 2015 and 2016. FAO directly implemented the project in collaboration with the government line departments of Khyber Pakhtunkhwa and community organizations.

## 1.1 Purpose of the evaluation

3. The main purpose of the final evaluation is to provide accountability to donors and partners by assessing FAO’s contribution to the overall improved agriculture-based livelihoods in the targeted districts and to draw lessons from the implementation processes that could inform future decisions by FAO, USAID and other donor funded projects on the formulation of similar or follow-up interventions.

## 1.2 Intended users

4. The intended users of this report are the Khyber Pakhtunkhwa Provincial Government, donors (USAID), FAO management, project managers and staff and other development actors in Pakistan. This report will facilitate the decision makers in making better decisions and adopting effective accountability measures based on the evidence collected both from the field and desk review. The report intends to provide information for programmatic improvement and organizational development as it has in-depth information about the current activities undertaken, staff engaged and suggestions for improvement while keeping geographical and cultural context in mind.
5. Table 1 below highlights the purposes established and the intended users according to the purposes.

**Table 1. Purpose of the evaluation and its intended users**

| Purpose   |                         | Intended users   |
|---|-------------------------|--|
| Accountability: to respond to the information needs of policy makes and other decision-making actors.                             | Inform decision making  | Khyber Pakhtunkhwa Provincial Government<br>Donors (USAID)<br>FAO management |
|   | Provide accountability  |  |
| Improvement: Programmatic improvement and organizational development to generate information for managers and operational actors. | Improve programme       | Project managers and staff   |
| Enlightenment: in-depth understanding of the programme and its context.   | Contribute to knowledge | FAO personnel and other development actors in Pakistan                       |

Source: Evaluation Terms of Reference: GCP/PAK/138/USA.

## 1.3 Scope and objectives of the evaluation

### 1.3.1 Scope of the evaluation

6. The initial start date of the project was January 2017, however actual implementation did not begin until July 2017. Therefore, the evaluation assesses the implementation period of the project from July 2017 to March 2021 as a cut-off date. The evaluation has covered all key activities undertaken within the framework of the project as described in the project document where focus was on outcome- and output-level results.

### 1.3.2 Evaluation objectives and key questions

7. The objective of this evaluation is to provide the project management team with feedback on the project's performance to date and to identify early risks to project sustainability, effectiveness, efficiency and progress towards results, including gender mainstreaming. The overall objectives of the evaluation are outlined in Box 1 below.

#### Box 1. Objectives of the evaluation

The objectives of this evaluation are:

- i. to assess the appropriateness of the project's design and approach;
- ii. to assess the project's achievements and contribution vis-à-vis its objectives;
- iii. to assess the actual and potential impact of the project and its contribution to poverty reduction and agriculture-based livelihoods;
- iv. to assess the programme contribution to the development of individual and institutional capacities; and
- v. to identify success areas, gaps and lessons, and make the appropriate recommendations to the project team, the donor and other stakeholders to guide decision-making and planning for the subsequent phase or similar projects in Pakistan.

8. Overall, the evaluation attempted to address the following main questions/sub-questions which are in line with the evaluation objectives and learning and accountability needs of the evaluation audience:
- i. To what extent were the project design and intended objectives, relevant to the needs and priorities of the target areas?
    - Has the project's design and implementation incorporated inclusive programming approaches and contributed to addressing gender considerations and needs of vulnerable groups (minorities, people with disabilities, and other)?
  - ii. To what extent have the project's implementation and coordination arrangements been efficient in delivering the project's outputs?
  - iii. To what extent have the project's activities contributed to stabilization and poverty reduction through sustainable agricultural productivity in the target areas?
    - Evaluate to which extent the project has contributed to the development capacities among communities and line departments of the involved government agencies, at both individual and institutional levels.

- How has the project adapted to the onset of the COVID-19 pandemic and what lessons can be drawn for agriculture and food security programmes aiming at alleviating the negative impacts of the pandemic?

## 1.4 Methodology

9. The evaluation was conducted according to the United Nations Evaluation Group (UNEG) Norms and Standards and Ethical Guidelines for Evaluation and in line with the FAO Office of Evaluation (OED) Manual and methodological guidelines and practices (FAO, n.d.a.). In view of the ongoing COVID-19 pandemic, the evaluation team had given a special emphasis on the adherence to the principle of "do no harm" and undertaken all the activities in line with Government regulations and guidelines as well as guidelines of the UN Security Team in Pakistan.
10. The evaluation was conducted using a consultative and participatory approach and employed mixed methodologies, combining qualitative and quantitative data to capture information relating to the evaluation objectives. The evaluation was guided by an in-depth analysis of the documents provided by the project staff, which was further used to develop the evaluation matrix and data collection tools in order to validate the field visits findings.
11. Data from the field was collected using the following methods: i) direct observations in the field; ii) key informant interviews (KIIs); iii) in-depth interviews; and iv) focus group discussions (FGDs).
12. The evaluation team visited two of the four project districts i.e. Khyber and Orakzai to collect data from the below mentioned stakeholders and observe activities on the ground. Specifically, FGDs were conducted with female beneficiaries in the district of Khyber to collect viewpoints about the project and assess the future needs of the women in the NMDs. Moreover, site visits were conducted to validate interventions such as irrigation schemes, broiler farms, and the livestock market, etc.
13. In addition, the evaluation team also visited the Peshawar and Hangu (Kohat) districts in order to meet key informants relevant to the evaluation. Overall, a significant number of stakeholders were consulted/interviewed during the process, including:
  - i. FAO management and operational staff and other partners;
  - ii. districts government and line departments; and
  - iii. beneficiary groups.
14. The list of stakeholders met is found in Appendix 1.

## 1.5 Limitations

15. To assess diverse interventions, the consultant had initially planned to include North Waziristan and Khyber districts for the field mission. However, due to the recent unfortunate incident in North Waziristan involving an attack on female aid workers of a local non-governmental organization (NGO) (Dawn, 2021a), all movement to North and South Waziristan has been restricted by the United Nations Department of Safety and Security (UNDSS). Consequently, the evaluation mission could only visit Khyber and Orakzai districts.
16. Furthermore, due to COVID-19 and other project delays, some of the major interventions were implemented much later in the project, which created hindrances in assessing the impact of these activities. For example, due to the recent installation of high tunnels, farmers have just begun to utilize this intervention, with expected impact to be seen with time. However, where possible the



evaluation team has tried to provide potential impact of some of the activities undertaken during the project.

## **1.6 Structure of the report**

17. After this introductory chapter, Chapter 2 provides the background, Chapter 3 gives the main evaluation results, following the key evaluation questions, Chapter 4 covers the gender dimension and Chapter 5 concludes the report with recommendations.

## 2. Background and context of the project

### 2.1 Description of the project

18. The project “Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa” (GCP/PAK/138/USA) started in January 2017 and has been extended from its original not to exceed (NTE) of December 2019 until September 2021. The project has been extended three times at no cost to make up for implementation delays as well as implementation of additional activities in order to utilize savings accrued as a result of competitive biddings. The total approved budget is of USD 10 million. The project is funded by USAID.
19. The project has assisted 42 763 households in the four selected districts: Khyber, Orakzai, North Waziristan and South Waziristan, by primarily focusing on the families that returned in 2015 and 2016. In order to avoid resentment, the project also benefited populations who remained in their native villages during the crises. FAO directly implemented the project in collaboration with government departments and community organizations.
20. The project’s objective is achieved through two main outcomes with corresponding outputs as shown in Table 2 below:

**Table 2. Objective and outcomes of the project**

|  |   |
|--|---|
| <b>Objective:</b> To make a significant contribution to stabilization of the area, reducing poverty and economic inequalities through sustainable agriculture development in tribal districts of Khyber Pakhtunkhwa. |   |
| <b>Outcome 1</b><br>Resumption of food production and restoration and improvement of agriculture-based livelihoods in target areas.  | <b>Output 1.1.</b> The agriculture productions (crops, livestock, poultry) of the beneficiaries have been restored and improved in return areas.<br><b>Output 1.2.</b> Productive assets of the beneficiaries have been restored/ rehabilitated/protected in the return areas.  |
| <b>Outcome 2</b><br>Restoration or establishment of market structures and services.  | <b>Output 2.1.</b> Agriculture enterprise established and strengthened.<br><b>Output 2.2.</b> Market structures/services strengthened including facilities for value additions, productive skills of the beneficiaries and institutional capacity of the government and private agriculture service providers enhanced; farmers access to information expanded. |

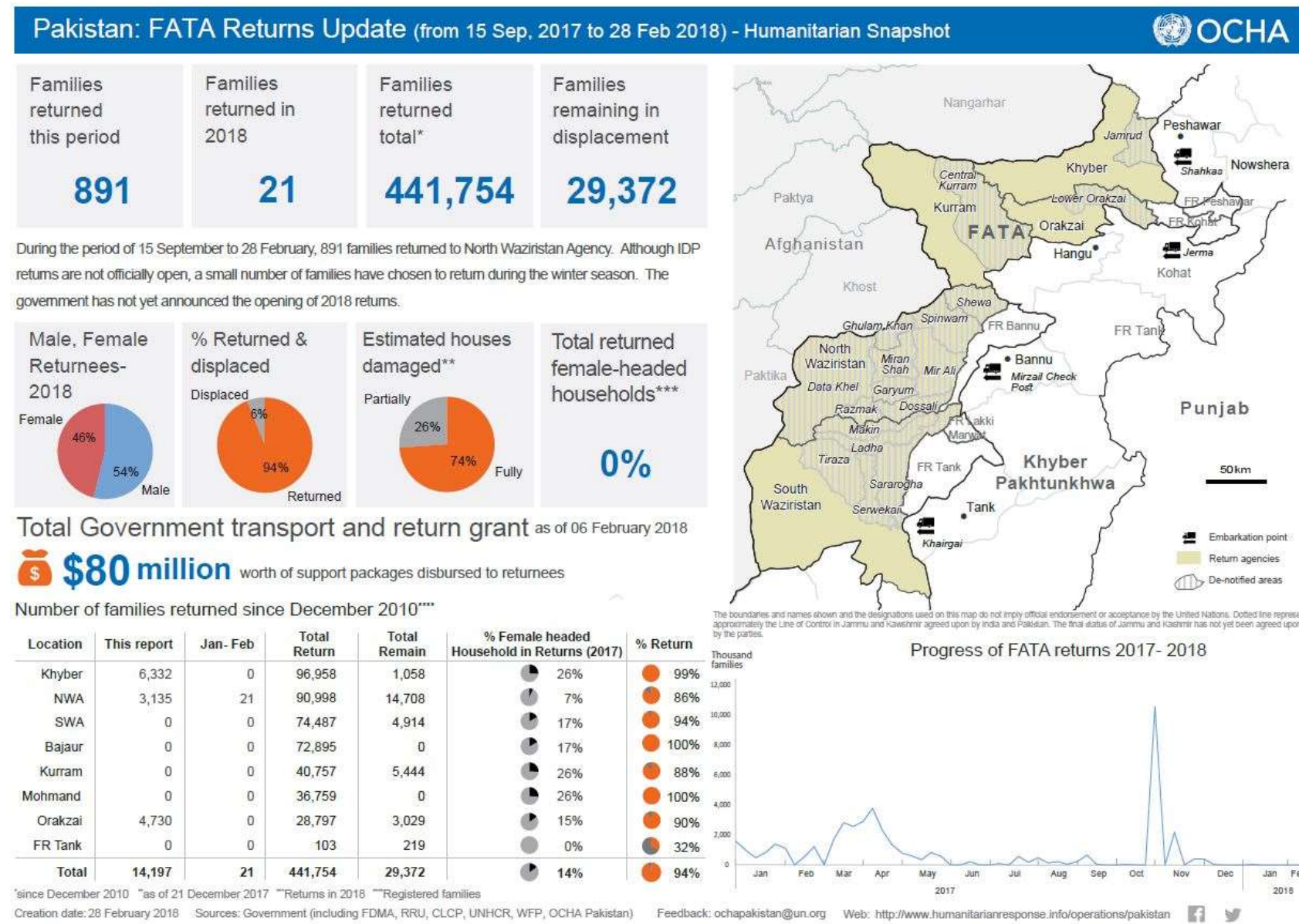
Source: Project Document, GCP/PAK/138/USA.

### 2.2 Context of the project

21. The erstwhile Federally Administered Tribal Areas (FATA) of Pakistan have long been a semi-autonomous region in the north-western part of the country, consisting of seven tribal agencies (districts) and six frontier regions, and were directly governed by the Federal Government of Pakistan through a special set of laws called the Frontier Crimes Regulations (FCR). Since the early 2000s a series of military confrontations between the Pakistani Army and armed groups have caused displacement of millions of people to bordering districts in Khyber Pakhtunkhwa.
22. In May 2018, following extensive public debates around the governance of FATA, it was officially merged into Khyber Pakhtunkhwa through a constitutional amendment voted by the National Assembly, and approved by the Khyber Pakhtunkhwa Provincial Assembly and the President of Pakistan. Since then, FATA was named as Newly Merged Districts (NMDs). These Merged Areas remain one of the most food insecure and vulnerable regions of the country and have the lowest rates of access to basic services such as health and education.

23. Economic activity in the NMDs mostly consist of subsistence agriculture and livestock rearing, which provides livelihoods to about 97 percent of the population. Since more than three decades the region has experienced regressive economic growth due to insecurity causing disruption of economic activities.
24. The conflict, as well as the lack of maintenance caused by displacement, has caused damages and losses to agriculture land and to irrigation structures, livestock populations and animal shelters, soil and water conservation facilities, water harvesting structures, fishponds and hatcheries, commodity processing facilities, and forest and rangeland areas. Moreover, the damages to the market infrastructure have severely disrupted the local supply chains and links with external markets. Likewise, the livestock subsector has been severely affected due to lack of veterinary services, supplies and non-availability of fodder. This has resulted in high rates of livestock mortality and distress selling. In addition to the militancy, the floods of 2010 inflicted substantial damages to farmland, water and irrigation systems, and other infrastructure in NMDs.
25. After the military clearance, the displaced families started the process of returning to their former homes from early 2015. The process is still ongoing at a slow pace because of loss of livelihoods and reduced income opportunities in NMDs. The conflict has caused damage and losses to irrigation infrastructures, animal shelters, livestock, soil and water conservation structures, water harvesting structures, fishery and government facilities (veterinary centres, research and extension, etc.). In addition, the returnees had to further deal with the devastating effects of the 2010 flood on the agriculture and livestock infrastructure as no prevention or rehabilitation measures had been taken due to the absence of the local population from the area. The findings of the Inter-Agency Early Recovery Need Assessment, conducted in March 2013, highlighted that the number of livestock heads had decreased by 35 percent due to various reasons, predominantly deaths and distress selling. Currently, livestock is ranked as the third primary source of income (Planning Commission of Pakistan, UNDP and University of Oxford, 2016) following agriculture and shop keeping/business, for returnees to NMDs.
26. Most temporarily displaced people (TDP) face multiple challenges in meeting their basic needs and are frequently forced to resort to negative coping mechanisms for survival (such as distress sales of livestock), causing chronic poverty and food insecurity. The analysis of returnee populations highlights substantial constraints in the ability of households (in de-notified areas) to recover from displacement. Despite the restoration of the security situation in the areas of origin, the fear of uncertainty about the future persists. The loss of livelihoods and reduced opportunities for full recovery is a major constraint preventing successful returns. Additionally, about 30 percent TDP reported displacement duration of more than four years. With such a long duration of displacement and extended reliance on external support, the discontinuity of livelihood activities and uncertainty about future reduces the chance of full recovery of livelihoods (FAO, 2017a).
27. According to the estimates of the Integrated Phase Classification (IPC, n.d.) in the period January-May 2020, around 1.18 million people (23 percent of the population) in 13 NMDs (districts/tribal sub-divisions) of Khyber Pakhtunkhwa, Pakistan is estimated to be in IPC Phase 3 (crisis) and Phase 4 (emergency). Previous estimates in 2017 (FSC & WFP, 2017) of food insecurity among returned households find that around 24 percent of returnees are food insecure.

**Figure 1. Pakistan: FATA returns update**



Source: OCHA, 2018. Map conforms to UN. 2004. [Map 4181, Rev. 1.](#)

28. Following the improved security situation in some erstwhile FATA areas, since 2015, the Government of Pakistan, through the FATA Secretariat, has developed and launched the FATA Sustainable Return and Rehabilitation Strategy (SRRS), which initiated the returns of TDP to their original locations and re-establishment of their livelihoods remains the main framework for rehabilitation and recovery activities in the Merged Areas, under the responsibility of the Newly Merged Areas Secretariat of the Khyber Pakhtunkhwa Provincial Government. The One UN Programme III (2018–2022) (UN, n.d.) and FAO's Country Programming Framework (CPF) 2018–2022 have aligned to the government Sustainable Refugee Return Programme (SRRP) as well as to Pakistan's long-term development strategy, Vision 2025.
29. With the generous financial assistance of USAID, FAO supported 151 141 repatriated families from September 2015 to December 2016 under the project "Revitalization of essential agricultural production to ensure household food security and livelihoods in the federally administered tribal areas of Pakistan". Upon successful completion of Phase-I, USAID continued its support for Phase-II of the project, "Restoring subsistence and commercial agriculture in tribal districts, Khyber Pakhtunkhwa" which is expected to close on 30 September 2021.

### **3. Key findings**

#### **3.1 Evaluation Question 1 (Relevance): To what extent were the project design and intended objectives relevant to the needs and priorities of the target areas?**

##### **3.1.1 Strategic alignment**

30. On a strategic level, the project's theory of change (TOC) is based on linking the relief efforts with the recovery, rehabilitation and development. This makes the project highly relevant and aligned with the government's priorities in NMDs, and FAO Pakistan's CPF, which stresses an immediate emphasis on reducing poverty, hunger, and building a more sustainable and resilient agriculture and food systems (FAO, 2017a).
31. The project mainly contributes to two strategic priority areas of the One UN Programme-II (2012 to 2017), Strategic Priority Area 6 "Food and nutrition security for the most vulnerable groups" and Strategic Priority Area 3 "Increased resilience to natural disasters, crises and external shocks".
32. Furthermore, by increasing economic opportunities in the NMDs (erstwhile FATA), the project will further contribute to one of the development objectives of the Government of the United States of America, "Increased stability in target areas" and all three of its intermediate results: i) key sector productivity and profitability increased, ii) micro-enterprise and small and medium enterprise (SME) activity expanded, and iii) market access improved.
33. In terms of alignment with the government's priorities, the project supports the Khyber Pakhtunkhwa tribal districts' 2015/2016 SRRS and complements the overall sector development and stabilization during a four-year period. The project is in line with three pillars of the strategy, namely Pillar 1: Rehabilitation of physical infrastructure, Pillar 3: Expansion of government service delivery, and Pillar 4: Reactivation and strengthening of the economy.
34. More specifically, the project is also aligned with the Agriculture Action Plan of Khyber Pakhtunkhwa tribal districts, which was prepared by the NMD secretariat with the assistance of FAO and approved by the Governor of Khyber Pakhtunkhwa in 2015. The action plan is comprised of main technical components including i) revitalization of essential food crop production to ensure household food security; ii) support to smallholder horticulture and commodity marketing for income generation; iii) strengthening crop advisory system and community capacity development; iv) revitalization of livestock production to ensure food security and income generation; v) strengthening livestock support services and community capacity building; and vi) rehabilitation of irrigation and water management systems (FAO, 2017a).

##### **3.1.2 Stakeholder engagement**

35. The project has been designed in close consultation with all key stakeholders including Newly Merged Areas Secretariat, Khyber Pakhtunkhwa, and FAO management. Additionally, the project also consulted line departments and district administrations for final endorsement before starting the implementation. For this purpose, an inception workshop was held during which stakeholder's stakeholder feedback and suggestions were recorded and subsequently incorporated in the work plan. Based on discussions with the project staff, FAO's previous experience of working in erstwhile FATA as the only UN agency, combined with learnings from prior USAID funded project implemented in the region further facilitated the process of stakeholder engagement.

### 3.1.3 Identification of beneficiaries

36. The project adopted a multi-stage participatory approach for identification of beneficiaries. In the first stage, the number of direct beneficiaries was estimated using the findings of the "Detailed Food Security Assessment (DFSA)."<sup>2</sup> More specifically, within the returning TDP families having agriculture-based livelihoods, a vulnerability criterion was applied to estimate the number of direct beneficiaries. Furthermore, while the project's primary target was the returnee population, in addition to the vulnerability factor, some of the key criteria for selection included: prevalent law and order situation, accessibility and potential for proposed interventions in the project districts. The expanded criteria not only enabled the project to include families who stayed behind, but also provided flexibility in identifying production clusters for strengthening and promoting agri-based enterprises.<sup>3</sup>
37. Followed by the identification of total estimated number of beneficiaries in the target districts, FAO initiated the identification of individuals for specific project interventions. Initially, identification was done through the respective line departments. However, to avoid the risk of exclusion and politicization, this approach was later changed. The identification process was instead initiated at community and village levels, where through the help of community-based organizations (CBOs) and village organizations (VOs),<sup>4</sup> the project identified vulnerable and deserving beneficiaries for different interventions. To ensure transparency and fair selection, the project revalidated the identification of beneficiaries through tribe based jirgas (involving tribal elders), line departments, and district administrations. This was also verified during the evaluation mission, where key stakeholders including the project beneficiaries and district administrations acknowledged and appreciated FAO's approach for selection of beneficiaries to be fair and just.
38. At the design stage, although five project districts were identified, during the inception stage Kurram was dropped because of similar interventions taking place under a parallel project funded by the Japan International Cooperation Agency (JICA) and implemented by FAO in that district.<sup>5</sup>

## 3.2 Evaluation Question 2 (Efficiency): To what extent have the project's implementation and coordination arrangements been efficient in delivering the project's outputs?

### 3.2.1 Project design

39. Overall, the evaluation team found the project design to be sound. The TOC is based on clearly articulated causal linkages between individual interventions and the planned objective of the project i.e "to make a significant contribution to stabilization of the area, reducing poverty and economic inequalities through sustainable agriculture development in tribal districts of Khyber Pakhtunkhwa."
40. The evaluation team however made a serious observation regarding the lack of gender-focused interventions<sup>6</sup> as well as gender-segregated targets in the project design. This particular gap can be seriously detrimental to ensuring long-term well-being of women beneficiaries in the project

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<sup>2</sup> Conducted by the Food Security Cluster in September 2014 in the conflict-affected and hosting areas of Khyber Pakhtunkhwa and Khyber Pakhtunkhwa tribal districts (FAO, 2017a).

<sup>3</sup> Based on KII with project staff.

<sup>4</sup> CBO stands for community-based organizations locally called (Khel) while village organizations (VO) are formed by clustering the different CBOs.

<sup>5</sup> Based on KII with project staff.

<sup>6</sup> With the exception of poultry packages, the project does not have any other women-focused interventions.

area; a concern which was also duly acknowledged by the project management team as well as the donor for future programming considerations.

### 3.2.2 Timeliness

41. Since its inception, the project has experienced several delays. Although, the contract was signed in January 2017, the project could not be initiated until July 2017. However, in the first year, the implementation scope was limited primarily to the distribution of crop inputs. The project eventually got into full swing the following year with disbursement rate jumping from 7 percent in 2017 to 29 percent in 2018. Based on discussions with the project staff, delays were caused due to a combination of reasons including, three months delay at donor end,<sup>7</sup> changes in the external context (the unexpected pace with which the merger was announced), and delayed hiring and high turnover within FAO field and management personnel.<sup>8</sup>
42. In addition to start up delays, multiple interventions were affected due to FAO's internal procurement and logistics procedures (discussed in detail in the section on effectiveness).<sup>9</sup> Moreover, although FAO continued implementation during COVID-19, the project's supply chain was severely affected due to extended country-wide lockdowns creating hindrances in procurement and delivery of goods. Significant delays were also experienced as a result of compliance with COVID-19 standard operating procedures (SOPs). For instance, instead of single distribution points, the project had to rely on door-to-door distribution modality which understandably stretched the project timelines. As a result, the originally planned end date of June 2020 had to be extended twice<sup>10</sup> at no cost with the project now expected to close by 30 September 2021.
43. Despite the above-mentioned delays, FAO has completed all of its activities with the exception of a few activities pending completion as follows:
  - i. provision of poultry packages to remaining 200 women beneficiaries;
  - ii. non-timber forest products (NTFPs) kits pine nuts and apples;
  - iii. solar/drip units; apple orchards in South Waziristan (25);
  - iv. artificial insemination kits (100);
  - v. packing material for horticulture produce 100; and
  - vi. integrated natural resource management (INRM) plans.
44. Based on discussions with the project personnel, the majority of delays have occurred due to procurement and logistics concerns within FAO, which have been further aggravated by the onset of COVID-19 causing extensive vendor delays. However, with renewed procurement orders, the project seems to be on track to complete pending activities before the end of the project on 30 September 2021.

### 3.2.3 Financial management

45. In terms of financial performance, although the project experienced slow utilization (7 percent) of allocated funds during the first year (2017), the pace of delivery increased in the following years with the largest disbursements (32 percent) made in 2020, which can be attributed to the

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<sup>7</sup> Based on discussions with USAID Project Management Specialist.

<sup>8</sup> Based on discussions with project team.

<sup>9</sup> Various progress reports highlighted the challenges associated with FAO procurement.

<sup>10</sup> The project was extended twice (first extension: July 2020–March 2021) and (second extension: April–September 2021).



achievement of results under no-cost extension. By 31 March 2021, the project had utilized USD 8.49 million, i.e. approx. 85 percent of the total USD 10 million budget. With USD 1.5 million still to disburse, the project will need to review the workplans in close coordination with the donor in order to ensure full disbursement before the project end date i.e. 30 September 2021.

**Table 3. Statement showing annual expenditure and percent funds disbursed**

|   | 2017    | 2018      | 2019      | 2020      | 2021      | Total expenditures |
|---|---------|-----------|-----------|-----------|-----------|--------------------|
| Expenditure of the total USD 10 million | 676 144 | 2 873 047 | 2 220 310 | 3 210 291 | (486 983) | <b>8 492 809</b>   |
| % disbursement                          | 7%      | 29%       | 22%       | 32%       | --        | <b>85%</b>         |

Source: Based on data provided by project personnel.

### 3.2.4 Donor coordination and reporting

46. In order to provide proactive monitoring and learning opportunities and streamline coordination with the donor, FAO project team submits quarterly progress reports to USAID. Moreover, the FAO project team obliges donor requirements by updating progress against specific indicators in a USAID operated database (Pak Info) as consolidated reporting against donor priority areas.
47. Based on the evaluation team's observation and subsequent discussion with the donor representative, while USAID appreciates the coordination efforts of FAO project personnel, there are concerns regarding the format and data presented in the quarterly progress reports. In general, the reports lack direction on measuring progress in a systematic and reader-friendly manner.

### 3.2.5 Monitoring and evaluation (M&E)

48. The performance of the project is largely measured against four outputs (two outputs under each outcome) and corresponding 32 number of activities. Based on the review of the log frame, the evaluation team found the link between different activities and the overall project outcomes to be sound.
49. However, serious observations are made regarding the absence of gender segregated targets of key interventions such as provision of crop inputs, establishment of small vegetable enterprises and tunnel farming, among others. The project log frame as well as the workplans overlook this critical aspect which hinders capturing the effectiveness and impact of key interventions specifically for women beneficiaries.
50. In terms of knowledge management and reporting, being a direct implementer, the monitoring and evaluation (M&E) mechanism placed within the project is fairly lean and comprises of quarterly progress reports and annual reports submitted to USAID. In addition, post distribution surveys, post-harvest surveys, and post monitoring and assessment reports are prepared for FAO's internal use. Additionally, the project has also been able to finalize a baseline survey just recently, which was planned in the initial phase of the project but delayed due to issues with the contracted research institution's access to the NMDs.<sup>11</sup>

<sup>11</sup> This study was conducted by Agriculture University Peshawar.

### 3.2.6 Staffing

51. In order to ensure efficient project delivery and implementation, the project is staffed with 39 number of personnel as shown in table below:

**Table 4. Number of personnel**

| Designation                        | Unit      |
|------------------------------------|-----------|
| Project Officers                   | 4         |
| Social Mobilizers                  | 8         |
| NRM Consultant                     | 1         |
| Livestock Officer                  | 1         |
| Value Chain Development Specialist | 1         |
| Coordination Specialist            | 1         |
| M&E Assistant                      | 1         |
| Famer Field School Facilitator     | 2         |
| LFFS                               | 1         |
| Warehouse Supervisor               | 3         |
| Water Management Assistant         | 2         |
| Office Assistant                   | 1         |
| Admin & Finance Associate Officer  | 1         |
| Field Security Assistant           | 1         |
| Field Logistic Officer             | 1         |
| Support Staff                      | 2         |
| Driver                             | 8         |
| <b>Total</b>                       | <b>39</b> |

Source: Based on data provided by project personnel.

52. In terms of staffing, the evaluation team found the field staff to be particularly understaffed, a concern which was also shared by the project management. The extensive scope of the project spread over a large and mostly inhospitable geographic area overburdens the staff at the risk of compromising the quality of project interventions. The issue of understaffing can best be understood by the field office locations, which are situated inconveniently far from the intervention districts. For instance, given the administrative setups and prevalent law and order concerns, the field office of South Waziristan is established in Dera Ismail Khan and Orakzai's field office is located in Kohat.<sup>12</sup> This particular aspect further adds to the complexity of the project delivery, which should at best be supported with at least a sufficient number of field staff.
53. In addition to being understaffed, there are also concerns that the field staff did not receive adequate training before being deployed in the field. This particular concern was also acknowledged by the project team which confirmed that other than a preliminary orientation, the field staff did not undergo any specific training, which also contributed to large turnover among staff and affecting project implementation.
54. Irrespective of the challenges noted above, the evaluation team found the project staff to be highly resilient and committed to achieving the desired project outcomes in a very fragile context.

<sup>12</sup> To put the distances in perspective, it takes almost 3.5 hours to reach Wana from Dera Ismail Khan.

### 3.3 Evaluation Question 3 (Effectiveness and Impact): To what extent have the project's activities contributed to an increase in sustainable agricultural productivity in the target areas?

55. This section assesses the effectiveness and expected impact of different interventions under each output as shown in table below:

**Table 5. Outputs and activities**

| Outputs  | Activities   |   |
|--|--|---|
|  | Completed  | Pending/ongoing   |
| <b>1.1 The agriculture production (crops, livestock, poultry and fisheries sectors) of the beneficiaries has been restored and improved in the return areas</b>  | Crop inputs (wheat and maize) – 25 500 households<br>Fodder seed (berseem, oats, sorghum) – 5 000 households<br>Crop packages-covid response – 15 850 households<br>Poultry packages – 1 845 households<br>Milk collection kits – 5 000<br>Sexed semen – 12 000 doses<br>Vaccination & deworming – 63 210 animals  | Poultry packages – 200 remaining households   |
| <b>1.2 Productive assets of the beneficiaries have been restored/rehabilitated/protected in the return areas</b>   | Land rehabilitation – 1 000 acres<br>Irrigation channels – 33  | INRM plans-10   |
| <b>2.1 Agriculture enterprises established and strengthened</b>  | Tunnel farming – 75<br>High tunnels/drip irrigation – 100<br>Small vegetable enterprises – 105<br>Fruit and forest plan nurseries (15, 16) – 26<br>Fruit plant orchards – 305 500<br>AI kits and training – 100<br>Rehabilitation of damaged broiler farms – 50<br>Milk sale points cluster - 78<br>Model meat sale points – 12<br>Farmers' registration (Farm Services Centres - FSC) – 4 000 | Kits (NTFP) – 100<br>AI kits – 100  |
| <b>2.2 Market structures/services strengthened including facilities for value additions, productive skills of the beneficiaries and institutional capacity of the government and private agriculture service providers enhanced; farmers' access to information expanded</b> | Livestock market – 3<br>Packing sheds – 5<br>Structured market (horticulture) – 5<br>Development of value chains – 5<br>Linkage development workshops – 15<br>Training for value chain stakeholders – 4<br>Equipment supports to agri-extension – 1  | Solar/drip system (apples South Waziristan) – 25<br>Packing material for horticulture produce – 1 000<br>Training for value chain stakeholders – 16 remaining |

Source: Project overview presentation, 26 March 2021.

### 3.3.1 Output 1.1. The agriculture production (crops, livestock and poultry) of the beneficiaries has been restored and improved in the return areas

#### 3.3.1.1 Crop inputs to resume the crop production

56. In order to assist the returnee population in resuming crop production, the project distributed improved varieties of seed among beneficiaries as part of Rabi and Kharif Packages in 2017–2018 as shown in Table 6.

- i. **Distribution of wheat seed packages:** Under this activity high quality wheat seeds packages of 50 kg were distributed among 8 000 households (1 500 in Khyber, 4 000 in North Waziristan, 2 500 in Orakzai) in 2017.

57. In addition to provision of seed packages (sufficient to cultivate one acre of land), the beneficiaries were also trained on improved crop production technologies as well as climate-smart agriculture (CSA) practices including line sowing of wheat, furrow irrigation, appropriate time of sowing, integrated weed management and seed treatment for control of seed born fungal diseases. Information and education material pertaining to wheat technology was developed in local language, considering the local context; and disseminated among the farmers for their better understanding (FAO, 2018a).

- ii. **Distribution of maize seed packages:** During the same period, the project had planned the distribution of maize and fodder maize seed as part of Kharif 2018 package for a total caseload of 9 500 households as shown in Table 6:

**Table 6. Provision of high-quality rabi-kharif seed packages (2017–2018)**

| Package         | Seed               | Total number of households |
|-----------------|--------------------|----------------------------|
| Rabi packages   | 50 kg wheat seed   | 8 000                      |
| Kharif packages | 30 kg maize seed   | 7 000 <sup>13</sup>        |
|                 | 20 kg sorghum seed | 3 000 <sup>14</sup>        |

Source: Quarterly progress report (July – September 2018).

58. However, out of total planned distribution, only 1 000 maize seed packages were distributed in Orakzai district while the distribution in other districts was suspended due to quality concerns with the maize seed.

59. In order to cover the shortfall, the project decided to provide wheat packages to the remaining 7 000 beneficiaries in the upcoming rabi season. According to project staff, during this time, the lands especially irrigated during the Kharif season were not left fallow but cultivated with maize seeds owned by the farmers and collected from the crops provided by FAO in the past (FAO, 2018a).

60. As committed, during the following quarter (October-December 2018) a total of 7 000 beneficiaries were facilitated with Rabi packages (certified wheat seeds) comprising of 4 000 beneficiaries from North Waziristan, 2 000 in Khyber and 1 000 in Orakzai tribal districts (FAO, 2018b). Whereas 1 000 beneficiaries from South Waziristan were provided with maize seeds as part of the Kharif packages in the January-March 2019 period (FAO, 2019a). The farmers were also oriented on good crop management practices.

<sup>13</sup> Number of households covered: Khyber 2 000, North Waziristan 2 000, South Waziristan 200, Orakzai 1 000.

<sup>14</sup> Number of households covered: Khyber 1 000, South Waziristan 1 000, North Waziristan 500, Orakzai 500.

## COVID-19 response

61. In response to the COVID-19 pandemic, and its consequent impact on long-term food security, FAO supported an additional 15 350 households through provision of improved seeds during the 2020 Kharif cropping season (FAO, 2020d). The emergency response was approved by the donor and adjusted in the underspent amount as a no-cost extension request (FAO, 2020b).
62. Under this activity 10 000 farmers received an improved variety of maize seed, 2 000 farmers received 5 kg pack of red bean seeds, 1 850 farmers received 10 kg pack of fresh beans seeds and 2 000 farmers received 1.5 kg pack of sunflower seeds to resume crop production activities as shown in Table 7.

**Table 7. Provision of seeds (COVID-19 response)**

| Package         | Seed                   | Total number of households |
|-----------------|------------------------|----------------------------|
| Kharif packages | 25 kg maize seed       | 10 000                     |
|                 | 5 kg red-bean seed     | 2 000                      |
|                 | 10 kg French bean seed | 1 850                      |
|                 | 1.5 kg sunflower seeds | 2 000                      |

Source: Quarterly progress report (July – September 2020).

63. The distribution was conducted in close collaboration with the Department of Agriculture and District Administration and reportedly in strict compliance with the COVID-19 prevention protocols.
64. In addition to the above, during the Rabi cropping season 2020, 1 000 farmers received wheat seeds to cultivate 1 000 acres of land and revitalize farming. These bags of 50 kg wheat seeds was distributed amongst target beneficiaries in districts of North and South Waziristan at the end of October and in early November 2020 (FAO, 2020d).
65. The beneficiary feedback for the crop inputs was gauged through the post-harvest and post-distribution and monitoring (PDM) surveys conducted by FAO, which was also verified during the evaluation mission vis-a-vis discussions with direct beneficiaries in sample target districts including Khyber and Orakzai. The overall feedback is summarized below:

### Wheat packages (2017–2018)

66. According to the PDM 2018–2019 report, the wheat seed was distributed at least 1.5 month late. Consequently, only one-third of the farmers (33 percent) cultivated the seed, whereas 10 percent of the seed stock were available with farmers at time of survey which was of no use. Ten percent of the total seeds were consumed by the households, 10 percent of the seeds were sold in the local market and others were used as fodder for cows and buffalos. The issue of late distribution was also confirmed during FGDs with the beneficiaries. However, despite late distribution, beneficiaries reported satisfaction with the overall quality and yields. In fact, during the evaluation mission, beneficiaries reported 30–40 percent increase in wheat yields. The positive results were largely attributed to the integrated approach by FAO including rehabilitated watercourses, orientations through farmer field schools (FFS), and high-quality seeds.

### Maize packages (2020)

67. Based on the findings of the post-harvest survey conducted by FAO, the maize packages provided as part of the COVID-19 response yielded modest results. Although there were no complaints on the quality of the seeds, the average yields reported were less than the previous year's production as well as the national average for the same season. Beneficiaries across target districts reported

yields between 9 to 11 maunds per acre, which barely cover the household food security needs beyond a few months.<sup>15</sup>

68. According to project personnel, the lower-than-expected yields could be the result of late delivery of seeds as well as absence of FFS sessions due to COVID-19 restrictions. Based on the survey results, the majority of farmers received the seeds almost one month later than the ideal sowing season, a recurring issue duly acknowledged by project personnel. Similarly, of the surveyed beneficiaries, 83 percent in Khyber, 82 percent in North Waziristan, 53 percent in Orakzai and 77 percent in South Waziristan reported not receiving any training on maize crops.

### **3.3.1.2 Provision of multi-cut rabi (winter) 2018 fodder seeds (oat and berseem seeds)**

69. To overcome the shortage of fodder and support livestock productivity, high value multi-cut fodder<sup>16</sup> seeds were provided to 5 000 livestock farming households in targeted tribal districts (4 000 from North Waziristan, 500 from Khyber and 500 from Orakzai) (FAO, 2018b).

### **3.3.1.3 Provision of poultry packages to restore poultry production**

#### ***Package distribution***

70. In order to support women beneficiaries, the project identified 2 000 women (700 from South Waziristan, 800 from Khyber, and 500 from Orakzai) for provision of poultry packages in Q3 of 2018. In the following quarter (October–December 2018), as per the beneficiary selection criteria poultry packages<sup>17</sup> were distributed among 1 845 women beneficiaries. To pilot a new poultry breed,<sup>18</sup> the project decided to facilitate the remaining 155 beneficiaries in the following year in September 2019 (FAO, 2018b).
71. However, while the purchase order for the remaining birds was issued in September 2019, with the expected delivery in October 2019, the vendor failed delivering the poultry birds as committed. As a result, the project decided to float a new requisition (FAO, 2020c). Unfortunately, even after placing a renewed request, the project waited for yet another year for the pending delivery. Consequently, the old purchase order (PO) was cancelled, and a new requisition was raised for the third time in November 2020 (FAO, 2020d). The delivery of 155 poultry packages remains pending to date, which altogether has been delayed for more than two years.

#### ***Trainings***

72. In April 2019, FAO organized a four-days training on poultry management to capacitate women in appropriate feeding and watering techniques, shelter hygiene management and management of day-old chicks. The training on poultry management was imparted to 180 female beneficiaries (60 from North Waziristan, 60 from Orakzai and 60 from Khyber) (FAO, 2019b).
73. Overall, beneficiary feedback regarding the selection criteria and the corresponding received poultry package has been positive. During the mission, the evaluation team met with a group of women in Khyber who highly appreciated the intervention. According to the beneficiaries, the provision of poultry packages not only established a source of income for the impoverished women, but also elevated their social status in the families for making effective contributions to

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<sup>15</sup> According to the post-harvest season 2020, the production is enough for one to four months for the majority of the respondents.

<sup>16</sup> All the 5 000 beneficiaries were provided with 4 Kg berseem seeds (high quality multi cut fodder).

<sup>17</sup> The package comprises of eight hens and two roosters at the age of four to five months, one watering bowl, one feeder, three eggs collection trays and 50kg poultry feed for one month.

<sup>18</sup> Based on discussion with the Project Livestock Expert.

the household income. On average, beneficiaries reported earning between PKR 18 000 and 25 000 per annum from the sale of eggs. The income generated was mostly used towards managing day-to-day expenses of the household as well as children's education. Examples of key expenditures include small grocery items (soap, salt, etc.), medicine, children's books, stationery and pocket money, and re-investment in purchase of poultry feed.

74. As poultry is generally susceptible to high mortality rates, the beneficiaries confirmed that two to three chicks perished soon after distribution. Whereas the remaining mortality occurred over a span of one to two years despite administering vet prescribed medication. Interestingly, despite mortality issues, beneficiaries showed interest in re-investing in the same breed, acknowledging that while the local breed costs half the price, the poultry birds distributed by the FAO project had double returns from sale of eggs and hence more beneficial in the long run.
75. The women however reported that since they did not have any information about the breed specs, this prevented them from re-investing in the same poultry birds. Consequently, to make the intervention sustainable beyond the life of the project, it is extremely important for the project to consider filling the gap on market information, which enables beneficiaries to switch to better quality inputs.

#### **3.3.1.4 Provision of milk collection kits for the hygienic collection and transportation of milk**

76. The project distributed 5 000 milk collection kits amongst the selected beneficiaries during the last quarter of 2018, (1 600 beneficiaries from South Waziristan, 1 200 from Khyber, 1 600 from North Waziristan and 600 from Orakzai).

#### **3.3.1.5 Livestock breed improvement through artificial insemination (AI) of imported sexed semen**

77. In the NMDs, about 80 percent+ cattle population have a non-descript origin. These non-descript animals lag behind the improved breeds in terms of milk and meat production. Under the breed improvement programme of the Livestock and Dairy Development Department currently about 8-10 percent of the breed-able cow population is inseminated (FAO, 2020c). To address this gap and revitalize livestock production in the target NMDs, FAO signed a letter of agreement (LOA) with the Livestock and Dairy Development Department Merged Areas. Given the extensive outreach in the field and expert human resource, the Livestock and Dairy Development Department was selected as service provider for field implementation of the activity under technical oversight of FAO.
78. Although the LOA with the Livestock and Dairy Development Department was signed on 25 October 2018,<sup>19</sup> due to international procurement delays, the project could not hand over the imported-sexed semen to the department until 22 March 2019, i.e. with a delay of five months. Consequently, the LOA was extended until 24 May 2020. However, due to the COVID-19 pandemic, the implementation activities were yet again delayed. Resultantly, with the imminent extension of the project, the LOA was also extended for the second time until 31 March 2021 (FAO, 2020c).
79. By the end of Q4 of 2020, the department was able to complete the insemination of all the 12 000 doses of sexed semen with district-wise breakdown provided in Table 9 (FAO, 2021a).

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<sup>19</sup> The LOA was signed for the period of October 2018 – 24 December 2019.

80. Additionally, 75 livestock owners attended a five-days training on livestock management. The training imparted knowledge and good practices pertaining to livestock management, breeding, livestock nutrition, disease prevention and first aid.<sup>20</sup> FAO anticipates uptake of the good livestock husbandry practices by the participating livestock owners, resulting in improvements in livestock health, nutrition, productivity, income gains and household food security (FAO, 2019b).
81. According to the final report submitted by the livestock department, an overall conception rate of 34.7 percent was recorded after administering 12 000 doses across the target districts, with the highest rate recorded in Orakzai at 45 percent. Based on discussions with the department and project personnel, despite the challenges associated with the implementation of the activity (specifically in the context of NMDs), the breeding programme has been termed a great success with the achieved conception rate well in-line with the international standards.<sup>21</sup>

**Table 8. District-wise break down of animals covered through AI and resulting conception rate**

| District         | Number of animals    | Conception rate            |
|------------------|----------------------|----------------------------|
| Khyber           | 3 000                | 37%                        |
| Orakzai          | 1 000                | 45%                        |
| North Waziristan | 4 000                | 31%                        |
| South Waziristan | 4 000                | 33%                        |
|                  | <b>Total: 12 000</b> | <b>Average rate: 34.7%</b> |

Source: Quarterly Progress Report (January-March 2021).

82. As the expected conception rate of female progeny is increased up to 90-93 percent out of the conceived calves, this will help increase the numbers crossbred population in the shortest possible time and ultimately increase milk and meat production, contributing to increased profitability and food security in the region. Local nondescript cows sell for a maximum of PKR 40 000-50 000 while the crossbred cow is easily sold for PKR 85 000-110 000 or more in local markets (FAO, 2020c).

### 3.3.1.6 Vaccination and de-worming of animals

83. In addition to the livestock breeder improvement programme, the project also agreed to provide support to the Livestock and Dairy Development Department for vaccination and de-worming of animals under the LOA signed in October 2018. Although not budgeted in the project document, the activity was included upon the request of the livestock department during the inception meeting (FAO, 2018b).
84. As an outcome of close consultations with the department, the project procured vaccines for major diseases including haemorrhagic septicaemia, black quarter, foot-and-mouth disease (FMD), enterotoxaemia and pest of small ruminants (PPR) to be administered on 59 500 animals owned by 8 500 households (seven animals per household) (FAO, 2018b).
85. By Q4 of 2019, the project had completed the vaccination and deworming of 26 503 large ruminants and 36 707 small ruminants supporting 8 627 and 8 759 households respectively. Exceeding the original targets by 6 percent, the activity was completed in two repeated cycles

<sup>20</sup> This includes immediate care/ instant care to the animals to prevent damages in case of sudden disorders and accidental injuries (such as cyanide poison in fresh water).

<sup>21</sup> Based on discussions with the Livestock and Dairy Development Department merged areas.



within the allocated time. Details of the vaccination and de-worming campaign are shown in Table 9 (FAO, 2020d).

**Table 9. District-wise breakdown of vaccination and deworming campaign**

| District <sup>22</sup> | Large ruminants (LR) | Households supported (LR) | Small ruminants (SR) | Households supported (SR) |
|------------------------|----------------------|---------------------------|----------------------|---------------------------|
| Khyber                 | 7 626                | 2 500                     | 10 278               | 2 500                     |
| Orakzai                | 6 224                | 2 127                     | 8 727                | 2 127                     |
| South Waziristan       | 12 653               | 4 000                     | 17 702               | 4 132                     |
| <b>Total</b>           | <b>26 503</b>        | <b>8 627</b>              | <b>36 707</b>        | <b>8 759</b>              |

Source: Quarterly progress report (October – December 2019).

86. Since livestock rearing is one of the mainstays of the local economy in NMDs, it is anticipated that the eradication of animal diseases will not only secure livelihoods of vulnerable farmers, but also help improve overall food security and nutrition in the target districts. In fact, the impact of this intervention became clearly evident in a recent FMD and PPR outbreak in the province (Box 2).

### Box 2. Outbreak of animal diseases hits Khyber Pakhtunkhwa

“Director general (extension) of the livestock department Dr Alam Zeb told Dawn that the FMD had severely affected cattle in 13 districts, while the outbreak of PPR was reported in seven districts...

(He) said the [situation in merged tribal districts was under control due to the ‘timely’ vaccination of animals by the UN’s Food and Agriculture Organization \(FAO\)...”](#)

Source: Dawn, 2021b.

87. During the evaluation mission’s interviews held with the government representatives, the intervention was highly appreciated at multiple levels. According to the Secretary of Agriculture and representatives of the Livestock and Dairy Development Department, despite the recent outbreak of FMD and PPR in the rest of the province, the NMDs were not affected due to timely interventions provided by FAO. As a result of this visible impact, the government representatives requested FAO to not only consider expanding the coverage to other districts, but also give the department the flexibility to use FAO support in non-project districts in case of emergencies.

### 3.3.2 Output 1.2. Productive assets of the beneficiaries have been restored/rehabilitated/protected in the return areas

#### 3.3.2.1 Land development/rehabilitation

88. Due to protracted crises in erstwhile FATA, there is a serious issue of land degradation as a result of soil erosion, soil compaction, invasive growth of undesired, obnoxious and uneconomical

<sup>22</sup> District North Waziristan was covered under a Department for International Development (DFID)-funded project running in parallel.

species of plants. Since agriculture land is of primary importance for improved crop production and diversification in the target areas, the project rehabilitated 1 000 acres of land in North Waziristan (500 acres) and South Waziristan (500 acres).

89. Initially, the project intended to rehabilitate land in three target districts including 500 acres of land in South Waziristan, 200 acres in North Waziristan and 300 acres in Orakzai. However, Orakzai had to be dropped due to social conflict over major target areas and evidence of illicit crop (poppy) cultivation. Eventually, the intended target of 300 acres of land rehabilitation was shifted to North Waziristan (FAO, 2020b).
90. In addition, farmers have been encouraged and guided to use leguminous and other high value crops seeds (beans, lentils, peanuts, vegetables, fruit plants, etc.) to restore and improve soil fertility of the targeted land as well as to increase income from the cultivation of additional land.

### 3.3.2.2 Repair and rehabilitation/development of irrigation related infrastructure

91. To enhance the agricultural productivity of recipient communities in the target NMDs, the project rehabilitated 33 irrigation schemes with a total command area of 3 903 acres benefitting 6 342 households. The breakdown of schemes rehabilitated by districts is shown in Table 10.

**Table 10. Details of irrigation schemes rehabilitated by district**

| District         | No. of channels | Cultivated command area (acres) |                          |                               | Beneficiary details (households) |                        |                   |
|------------------|-----------------|---------------------------------|--------------------------|-------------------------------|----------------------------------|------------------------|-------------------|
|                  |                 | Existing command area           | Incremental command area | Total cultivated command area | Direct (households)              | In-direct (households) | Total (household) |
| Khyber           | 13              | 625                             | 185                      | 810                           | 630                              | 2 270                  | 2 900             |
| North Waziristan | 10              | 1 632                           | 649                      | 2 281                         | 285                              | 1 919                  | 2 204             |
| South Waziristan | 10              | 583                             | 229                      | 812                           | 258                              | 980                    | 1 238             |
| <b>Total</b>     | <b>33</b>       | <b>2 840</b>                    | <b>1 063</b>             | <b>3 903</b>                  | <b>1 173</b>                     | <b>5 169</b>           | <b>6 342</b>      |

Source: Quarterly Progress Report (January-March 2021).

### Identification of schemes

92. Based on the desk review and discussions held with project personnel, the selection of schemes was finalized in close consultation with key stakeholders including the Irrigation Department, followed by final endorsement from the district administration in each NMD.
93. The initial target of 20 schemes was decided during the Project Inception Meeting held in August 2017. Under the supervision of FAO and with participation of key stakeholders including erstwhile FATA secretariat, two districts of North Waziristan and South Waziristan were prioritized for rehabilitation of ten schemes each. To rehabilitate the identified schemes, the project signed an LOA with the Irrigation Department and hydel power FATA. The LOA primarily entailed: providing support to FAO in the identification of schemes, cost estimation and design, orientation of the farmer community on the operation and maintenance of the irrigation channels, vendor identification and its quality control by supervising the schemes in the selected areas.
94. Although the initial targets included 20 schemes, in the first quarter of 2020 13 additional schemes in Khyber were added as a new activity under the no cost extended period of the project. The

rehabilitation of the newly identified schemes in Khyber were primarily realized as a result of project savings and community demand routed through the department of irrigation and the district administration (FAO, 2020b).

### ***Implementation of works***

95. The project was able to achieve its targets successfully, with the exception of a slight delay on two schemes in North Waziristan. Due to community conflict over land, two previously selected schemes in North Waziristan were replaced with new sites. Correspondingly, the LOA with the Irrigation Department was also extended until June 2020 with the remaining schemes completed in Q2 of 2020 (FAO, 2020d).

### ***Quality of infrastructure***

96. During the evaluation mission's visit to two selected sites,<sup>23</sup> the team found the infrastructure quality of the rehabilitated schemes to be satisfactory in appearance. In fact, during discussions with the beneficiaries, community members who had taken a personal interest in the supervision of rehabilitation works were equally satisfied with the construction quality.

### ***Operation and maintenance***

97. As part of the LOA with FAO, the Irrigation Department had a mandate of forming 20 water user associations (WUAs) and training the respective team members on irrigation management and operation and maintenance (O&M) of the rehabilitated schemes. By Q2 2020, however, only ten WUAs were formed in North Waziristan out of which five were provided training. As the LOA with the Irrigation Department had already expired, it was decided that FAO would take the responsibility of formation and training of the remaining 15 (ten in North Waziristan and five in South Waziristan) water user associations (FAO, 2020b) as well as the 13 newly added schemes in Khyber. However, based on discussions with project personnel, it was subsequently decided that upon completion, FAO would hand over all the schemes to the irrigation department which will be responsible for forming the WUAs and train respective community members in O&M.

### ***Productivity improvement***

98. In terms of contribution to overall agricultural productivity and water resource management the rehabilitated schemes are expected to accrue major benefits to farmers including reduced conveyance losses, fewer water disputes among farmers, sufficient water for tail end farmers and reduced irrigation time. In many cases, the improved watercourses are also expected to bring new areas under cultivation and increase the agricultural land value in the target NMDs. This was also confirmed during a site visit in Khyber, where, after rehabilitation of two 2 500 running feet channels (each), farmers can now efficiently irrigate their land, effectively cutting the irrigation time by half. Correspondingly, increases in productivity have also been reported. For instance, in Khyber farmers who were previously getting seven to eight maunds of wheat per acre are now able to double their yields to 15-18 maunds per acre as a result of improved irrigation. With a continuous and steady supply of water, it is further hoped that improved irrigation would also result in diversification of crops as farmers will no longer be reliant on rain-fed crops only.

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<sup>23</sup> Two schemes visited in Khyber.

### 3.3.3 Output 2.1. Agricultural enterprises established and strengthened

#### 3.3.3.1 Off-season vegetable production through tunnel farming

99. To promote sustainable and profitable agriculture enterprises, FAO installed 75 walk-in tunnels and 100 high tunnels with drip irrigation system in the target districts. It is worth noting that FAO has been duly credited with introducing tunnel farming in the NMDs for the very first time, an intervention highly appreciated by beneficiaries and other key stakeholders alike.
100. Before the installation of walk-in tunnels, FAO organized consultative meetings with the Agriculture Extension Department and the owners of established vegetable tunnel enterprises in the country. The consultations led to the development of farmer selection criteria and identification of tomato as a profitable vegetable for tunnel farming. Subsequently, the project distributed high quality tomato seeds (Sahel variety) along with the walk-in tunnels among the selected beneficiaries.
101. While the high tunnels were just recently installed (Q1 2021) as an activity under no-cost extension, the installation of walk-in tunnels was completed in Q4 of 2019. Table 11 shows district-wise data of tunnels installed.

**Table 11. District-wise data of tunnels installed**

| District         | Walk-in tunnels | High tunnels with drip irrigation |
|------------------|-----------------|-----------------------------------|
| Khyber           | 10              | 25                                |
| Orakzai          | 10              | 25                                |
| North Waziristan | 25              | 25                                |
| South Waziristan | 30              | 25                                |
| <b>Total</b>     | <b>75</b>       | <b>100</b>                        |

Source: Quarterly progress reports (October – December 2019 and January – March 2021).

102. Through the installation of tunnels, FAO aims to introduce the concept of off-season vegetables in the region, which will not only contribute to food security of vulnerable households, but also result in higher revenues for farmers. This was also confirmed during the evaluation mission to the NMDs and discussions with various recipients of both walk-in as well as high tunnels. According to the beneficiaries, as off-season vegetables fetch extra revenue and are consistently demanded year-around, as a result of FAO's intervention, tunnel farming will enable farmers to generate additional income and lay a solid foundation for establishing profitable agriculture enterprises.

#### 3.3.3.2 Establishment of small vegetable enterprises

103. In order to support the beneficiaries in establishing small agri-based enterprises that will not only help in improving household food security but also generate additional incomes, FAO provided vegetable seeds and toolkits to 105 farmers in the target districts as shown in Table 12.

**Table 12. District-wise data of farmers supported with establishment of small vegetable enterprises**

| District         | Number of farmers supported | Vegetable seeds and toolkit details  |
|------------------|-----------------------------|--|
| Khyber           | 24                          | Bitter gourd (2 kg), cucumber (0.15 kg), okra (3kg), and tomato (0.15 kg).<br>Toolkit (including gloves, goggles, apron, mask, spray pump, peat moss, seedling trays). |
| Orakzai          | 28                          |  |
| North Waziristan | 28                          |  |
| South Waziristan | 25                          |  |
| <b>Total</b>     | <b>105</b>                  |  |

Source: Quarterly progress report (April – June 2020).

104. For the acquisition of seeds, initially FAO had initiated the procurement process for summer and winter vegetables. However, as the selected vendor failed to provide quality seeds as per FAO's set seeds quality adherence criteria, the PO was cancelled. Instead, in light of the cropping calendar of target districts and seasonal nature of this activity, the project decided to club *summer* and *winter* vegetable seeds together. The vegetable seeds were eventually distributed among the selected beneficiaries in the first quarter of 2020, whereas the toolkits were distributed in the following quarter again owing to delays in procurement due to COVID-19 (FAO, 2020a).

### 3.3.3.3 Establishment of fruit plant nurseries

105. Establishment of fruit plant nurseries is one of the pressing demands of farmers in the targeted areas. In the NMDs, fruit plant nurseries are non-existent resulting in lack of availability of good quality/certified fruit plants to farmers in local markets (FAO, 2019b). To address this gap, FAO established 15 fruit plant nurseries as shown in Table 13.

**Table 13. District-wise number of nurseries established**

| District         | Number of nurseries established |
|------------------|---------------------------------|
| Khyber           | 2                               |
| North Waziristan | 5                               |
| South Waziristan | 6                               |
| Orakzai          | 2                               |
| <b>Total</b>     | <b>15</b>                       |

Source: Quarterly progress report (April – June 2019).

106. In addition, the same 15 nursery owners were also selected for a five-days training on nursery management in the first quarter of 2019. The training aimed to build the capacity of participating nursery owners in improved nursery management practices, enterprise development, and registration with the Federal Seed Certification and Registration Department (FSCRD) to ensure future sustainability (FAO, 2019b).
107. In the following quarter, FAO hired seven resource persons to build capacity of the nursery owners in an improved budding process. In July, budding was successfully completed in 15 fruit plant nurseries (FAO, 2019c).
108. According to the project data, during Q1 2020, 58 430 fruit plant saplings were grown and prepared in 13 nurseries of Khyber, North Waziristan and South Waziristan. Whereas in Orakzai due to harsh weather conditions, plants were still in small size expected to be ready in the following quarter (FAO, 2020a).
109. As an activity under the no-cost extension, the project established 16 walnut nurseries (four in each district) and provided fencing material for the nurseries. Moreover, the nursery owners were also trained in nursery management practices (FAO, 2020d).
110. Based on discussions with the recipients in the field, nurseries are proving to be profitable enterprises in the region. In fact, based on anecdotal evidence, many farmers are now considering shifting from illicit cannabis cultivation to nursery/orchard management. According to one of the beneficiaries interviewed in Orakzai, after preparing 2 500 saplings each of oranges and guavas, the nursery owner was able to sell orange plants for PKR 220 000 and guava plants for PKR 150 000.

### 3.3.3.4 Provision of kits for non-timber forest products (NTFP)

111. To promote the most profitable NTFPs in the target districts, FAO held consultations with key stakeholders including Agriculture and Forest Departments, which led to the identification of pine nuts (*chalghoza*) as the most profitable NTFPs in South Waziristan. The gap analysis conducted jointly with the Forest and Agriculture Extension Departments further led to the identification of critical problems faced by pine nuts producers during harvest and post-harvest stages. To improve the pine nut value chain and returns for producers, FAO designed a comprehensive tool kit<sup>24</sup> for improved and sustainable harvesting/collection, storage, packing and packaging (FAO, 2020d).
112. Consequently, a pay order was issued to the selected vendor in the first quarter of 2020 but due to the pandemic the delivery was delayed. According to project personnel, while most of items were eventually delivered to the FAO warehouse, due to a key missing tool (pole fruit collector) which is still pending delivery, the project cannot distribute the kits to the beneficiaries.

### 3.3.3.5 Rehabilitation of damaged fruit orchards

113. The diversified agro-climatic conditions of NMDs are highly conducive for the cultivation of almost all fruits ranging from temperate to tropical species. However, unfortunately the orchards in the region are also faced with low yields mainly attributed to the unavailability of quality planting material, use of primitive cultural practices by the orchardists, scarcity of water and little technical know-how about modern fruit production practices (FAO, 2017b). To address this issue, in the first quarter of 2019, FAO assisted in establishing/developing 1 000 orchards (one acre each) in the target NMDs by distributing 305 153 saplings of different fruit trees as shown in Table 14. On average, each beneficiary received 80-100 saplings per acre of different fruit trees.

**Table 14. Number of saplings provided by the project**

| Species      | Khyber        | North Waziristan | South Waziristan | Orakzai       | Total          |
|--------------|---------------|------------------|------------------|---------------|----------------|
| Apricot      | 3 872         | 32 525           | 31 751           | 8 325         | 76 473         |
| Plum         | 4 066         | 23 426           | 34 074           | 2 130         | 63 696         |
| Sweet orange | 3 630         | 8 168            | 15 730           | 0             | 27 528         |
| Pomegranate  | 0             | 15 428           | 9 583            | 3 872         | 28 883         |
| Guava        | 2 420         | 22 083           | 0                | 0             | 24 503         |
| Lemon        | 6 098         | 9 583            | 13 068           | 0             | 28 749         |
| Peach        | 0             | 8 325            | 6 002            | 2 420         | 16 747         |
| Date palm    | 0             | 4 500            | 0                | 0             | 4 500          |
| Apple        | 0             | 0                | 5 808            | 1 742         | 7 550          |
| Pear         | 0             | 0                | 0                | 1 549         | 1 549          |
| Cherry       | 0             | 0                | 14 133           | 1 549         | 15 682         |
| Almond       | 0             | 5 808            | 0                | 3 485         | 9 293          |
| <b>Total</b> | <b>20 086</b> | <b>129 846</b>   | <b>130 149</b>   | <b>25 072</b> | <b>305 153</b> |

Source: Quarterly progress report (January – March 2019) and details provided by project personnel.

114. Additionally, as part of the no cost extension activity, the project also distributed 4 500 date palm saplings (*dakki*) for the establishment of 41 date orchards in North Waziristan. Each beneficiary received 109 saplings per acre. Although, the distribution of the saplings was initially delayed due to the COVID-19 lockdown, saplings were eventually distributed among the beneficiaries in third quarter of 2020 (FAO, 2020c).

<sup>24</sup> The toolkit comprises of equipment and tools for improved harvesting, storage and processing, including a tarpaulin sheet, rope, pole fruit collector, safety belt and purpose-designed sack/bags for collection, helmet, safety gloves, rubber safety boots, ladders (tripod) and jute bags for packing (FAO, 2020d).

### 3.3.3.6 Pruning tools and packaging materials for small fruit enterprises

115. In addition to fruit saplings, the project also provided toolkits<sup>25</sup> to 1 000 orchard owners (200 in Khyber, 360 in North Waziristan, 360 in South Waziristan and 80 in Orakzai) along with training and demonstration on orchard pruning and management (FAO, 2019a).

### 3.3.3.7 Provision of artificial insemination (AI) kits and training

116. In order to promote and strengthen livestock-based enterprises, the project held consultative meetings with the Director of Livestock and Dairy Development Department erstwhile FATA to identify 100 educated youth in the target agencies for potential support to be trained as AI technicians. However, after detailed discussions, it was mutually agreed between FAO and the Livestock and Dairy Development Department that given the technical nature of the AI activity, the project will instead train existing veterinary assistants in the Livestock and Dairy Development Department FATA (FAO, 2018a). Consequently, in the second quarter of 2019, capacity building sessions were organized for the 100 veterinary technicians at the University of Animal Sciences in Lahore (UVAS).<sup>26</sup>
117. Additionally, it was proposed to also equip the trained technicians with AI kits. However, once again faced with procurement delays, the project has been unable to arrange the kits to date. According to the quarterly progress reports (FAO, 2020b), although the PO was issued in 2019, the delivery of the kits has been delayed due to COVID-19. Subsequently, when the consignment did arrive after a delay of more than one year (Q1 2021), the equipment therein did not match the required specifications and had to be returned to the vendor for replacement (FAO, 2021a).

### 3.3.3.8 Rehabilitation of damaged small-scale broiler farms

118. During the insurgency period, the livelihood of farmers was disrupted in many ways, including extensive damage sustained to the physical infrastructure. Consequently, in its efforts to strengthen livestock enterprises, the project identified 50 small-scale broiler farms for rehabilitation. While the construction work on 42 broiler farms was successfully completed in the last quarter of 2020, the remaining eight farms in North Waziristan were completed in Q2 of 2021, as they needed complete re-construction.<sup>27</sup> Table 15 shows the details of broiler farms rehabilitated.

**Table 15. District-wise data of broiler farms rehabilitated**

| District         | No. of broiler farms |
|------------------|----------------------|
| Khyber           | 22                   |
| North Waziristan | 18                   |
| South Waziristan | 10                   |
| <b>Total</b>     | <b>50</b>            |

Source: Quarterly progress report (January – March 2021).

119. In addition to the rehabilitation works, the project had also planned to provide 1 000-day old chicks, poultry kits and poultry feed to the broiler farm owners. However, again due to

<sup>25</sup> Pruning kit comprising of pruning scissor, pruning saw and winter pruners.

<sup>26</sup> The technicians were trained in four batches.

<sup>27</sup> During the intervening period from the assessment until the start of the physical work, the condition of about eight broiler farms selected for partial repair in North Waziristan further deteriorated and needed complete reconstruction, therefore revised design and estimates were prepared for these broiler farms and sites handed over to the selected vendor.

procurement-related issues, while the PO for the said items was issued in Q3 of 2020, supply of day-old chicks was completed in Q2 of 2021.<sup>28</sup>

120. To capacitate farmers, the project also organized a four-day training for all the broiler farm owners/operators. However, due to COVID-19 the training was postponed and now planned in July 2021.<sup>29</sup>
121. During the evaluation mission, the team visited two broiler farms in Khyber and held interviews with the enterprise owners. While some progressive farmers have already started utilizing the structures, others wait to receive support from the project including inputs (day old chicks) and training, essentially leaving the structures completely non-operational.
122. Based on discussions with one of the beneficiaries who has already started utilizing the newly rehabilitated broiler farm, the construction quality was significantly appreciated due to its design and building material, which aides in reducing mortality rates of the chicks.

### 3.3.3.9 Establishment of milk sale points at cluster level

123. To improve the dairy value chain development in the target NMDs, FAO planned to establish 100 milk sale points at the cluster level in four targeted districts. Under this activity the project distributed a package among the selected milk sale point owners in each district. The criteria for the package was finalized in close consultation with the Livestock and Dairy Development Department and contained a digital weighing balance, deep freezer, cooling tank, milk cans, milk measuring mug, milk trough, yogurt trays, milk mugs, milk sieve and milk buckets. As shown in Table 16 by Q2 of 2020, FAO had established 78 out of the planned 100 milk sale points.
124. Although the equipment delivery was delayed due to COVID-19, it was eventually received in the FAO warehouse in Q2 of 2020 and subsequently distributed among the selected enterprise owners.

**Table 16. District-wise data of milk-sale points**

| District         | Number of milk sale points |
|------------------|----------------------------|
| Khyber           | 22                         |
| Orakzai          | 5                          |
| North Waziristan | 38                         |
| South Waziristan | 13                         |
| <b>Total</b>     | <b>78</b>                  |

Source: Quarterly progress report (October – December 2020).

125. During the evaluation mission's visit to Orakzai, the team did not see a dedicated milk-sale point. As noted by the representative of line department, the intervention could not be properly implemented in Orakzai, because there is no concept of dedicated milk sale point in the district. Most of the households either have their own source of milk at home, purchase it from neighbours or procure it from small teashops and hotels in the village.<sup>30</sup>

<sup>28</sup> As reported by project personnel during the finalization of this report.

<sup>29</sup> Based on discussions with project personnel.

<sup>30</sup> Key informant interview with District Director Livestock Extension, Orakzai.



### 3.3.3.10 Establishment of district-level milk collection and marketing units

126. To develop enterprises, and also facilitate local communities, the project established 28 milk collection centres as shown in Table 17 below.

**Table 17. District-wise milk collection and marketing units**

| District         | Number of milk sale points |
|------------------|----------------------------|
| Khyber           | 5                          |
| Orakzai          | 4                          |
| North Waziristan | 19                         |
| South Waziristan | 5                          |
| <b>Total</b>     | <b>28</b>                  |

Source: Quarterly progress report (October – December 2020).

### 3.3.3.11 Establishment of model meat sale points

127. To promote livestock-related enterprises as well as ensuring supply of hygienic meat to the community, the project identified sites for establishment/rehabilitation of meat shops. Based on the initial targets, the project established 12 model meat sale points across three target districts (four in Khyber, five in North Waziristan and three in South Waziristan).<sup>31</sup>

### 3.3.3.12 Registration of farmers with Farm Services Centres (FSC)

128. To strengthen government's capacity and accelerate farmers access to the Farm Service Centres (FSC),<sup>32</sup> by Q1 of 2019, FAO had achieved the target of 4 000 male farmers' registrations under an LOA signed with the Agriculture Extension Department (FAO, 2019a). Table 18 shows the number of farmers registered in each target district.

**Table 18. District-wise number of farmers registered**

| District         | Number of farmers registered |
|------------------|------------------------------|
| South Waziristan | 1 600                        |
| North Waziristan | 1 200                        |
| Khyber           | 600                          |
| Orakzai          | 600                          |
| <b>Total</b>     | <b>4 000</b>                 |

Source: Quarterly progress report (January – March 2019).

129. To assess the effectiveness of this intervention, the evaluation mission held discussions with beneficiaries in the field. The majority of farmers acknowledged that prior to FAO's intervention, they were unaware of the services provided by FSC. But now after registration farmers plan to access the FSCs for multiple services such as information on certified seeds, farm machinery, and enhancing knowledge on increasing overall agricultural productivity.

130. As envisaged in the project design, it is hoped that the above intervention will help revive the role of FSCs while establishing linkages with the producer marketing groups (PMGs), and quality input providers through continued engagement and capacity development.

<sup>31</sup> Due to lack of potential, no meat sale point was established in Orakzai and the targets were instead shifted to North Waziristan.

<sup>32</sup> The FSC is a government-led public-private partnership-based institution, where registered farmers can avail subsidized services and inputs.

### 3.3.4 Output 2.2. Market structures and services strengthened, including facilities for value addition, productive skills of beneficiaries and institutional capacity of government and private agriculture service providers enhanced, farmers' access to information expanded

#### 3.3.4.1 Strengthening and establishment of the livestock market

131. To strengthen the existing market structures, FAO in consultation with key stakeholders including the relevant District Administrations and Livestock Departments identified three livestock markets for improved service delivery through enhanced infrastructure and formation of market committees. According to the project reports, all three livestock markets (one in each district of Khyber, North Waziristan and South Waziristan) were completed in third and fourth quarters of 2020 and are fully operational.
132. In addition, with the support of the district administrations and line departments, the project also assisted the recipient communities in formation of market committees with representation from the concerned markets. These committees are responsible for the maintenance of the market as well as implementing the defined market regulation of the provincial government for the market's management (FAO, 2021a).
133. To capacitate the desired market committees and market functionaries on effective management/functioning of markets; a detailed training on market management, role and duties of market committee(s), and understanding of legal terms for the market committee was conducted in all three districts.<sup>33</sup> The purpose of trainings was to create awareness among members of the committees regarding i) working of livestock markets in the country/province, ii) relevant rules and regulations governing the trade of livestock in the province, and iii) successful management of the markets.

**Table 19. District-wise livestock market committee trainings**

| District         | Training dates      | Participants | Market name                              | Location         |
|------------------|---------------------|--------------|--|------------------|
| South Waziristan | 20-21 February 2021 | 12           | Livestock market, Ragzai                 | Dera Ismail Khan |
| North Waziristan | 6-7 March 2021      | 10           | Livestock market, Darpa Khel, Miran Shah | Bannu            |
| Khyber           | 16-17 March 2021    | 6            | Livestock market, Bara                   | Bara             |

Source: Quarterly progress report (January – March 2021).

134. During the evaluation mission, the team visited the livestock market in Bara, Khyber and noted visible improvements to the existing infrastructure as well as construction of newly built structures including toilets, animal sheds, feeding area and animal loading area aimed at facilitating both the consumers as well as suppliers.

#### 3.3.4.2 Establishment of cluster-based packing sheds/collection centres for fruits and vegetables

135. In addition to livestock markets, the project also established five cluster-based packing sheds/collection centres in North Waziristan (two), South Waziristan (two) and Khyber (one). The market structures are primarily expected to facilitate market functionaries including shop keepers/fruits and vegetable sellers.

<sup>33</sup> Trainings conducted in February 2021.

136. In addition, the project also formed respective market committees with representation from concerned villages. The committees will be mainly responsible for the maintenance of the market as well as implementing the defined market regulation of the provincial government for the markets.
137. To capacitate the desired market committees and market functionaries on effective management/functioning of markets, a two-day training was arranged for the committee members as shown in Table 20.
138. The purpose of trainings was to create awareness among members of the committees regarding i) agriculture marketing system in the country/province, ii) relevant rules and laws governing the trade of agricultural commodities and, iii) successful management of the markets (FAO, 2021a).

**Table 20. District-wise data of market committee trainings**

| Sr. No. | District         | Training dates      | Participants | Market name                                | Held at          |
|---------|------------------|---------------------|--------------|--|------------------|
| 1.      | South Waziristan | 18-19 February 2021 | 10           | Agri-park fruit and vegetable market, Wana | Dera Ismail Khan |
| 2.      | South Waziristan | 22-23 February 2021 | 10           | Fruit and vegetable market, Makeen         | Dera Ismail Khan |
| 3.      | North Waziristan | 4-5 March 2021      | 16           | Fruit and vegetable market, Miran Shah     | Bannu            |
| 4.      | North Waziristan | 8-9 March 2021      | 11           | Fruit and vegetable market, Mir Ali        | Bannu            |
| 5.      | Khyber           | 18-19 March 2021    | 6            | Fruit and vegetable market, Bara           | Bara             |

Source: Quarterly progress report (January – March 2021).

139. During the evaluation mission's visit to the fruit and vegetable market in Bara, the team acknowledged the newly built packing shed, which was equally appreciated by the market stakeholders. However, based on discussions with the market committee members, the evaluation team noted extensive need for further capacity building support in order to make these groups sustainable. Similarly, as an exit strategy, the project may also consider notifying these committees under the provincial "Agricultural and Livestock Produce Market Act 2007".

### 3.3.4.3 Establishment of a structured market for horticulture produce

140. During Q3 and Q4 of 2020, the project established five market structures (one in Khyber, two in North Waziristan and two in South Waziristan). To ensure the sustainability of market structures, the project plans to support 1 000 households through the provision of packing material for cereal, vegetables crops and for reducing post-harvest losses in transportation to national markets. The procurement process for this support/material has been initiated and will be completed in the second quarter of 2021 (FAO, 2021a).

### 3.3.4.4 Development of value chain models based on already conducted studies and potential

141. In May 2017, the project undertook a study to identify profitable value chains in the target districts. Based on the outcome of the study, five potential commodities (apples, pine nuts, potatoes, tomatoes and livestock) were identified for value chain development. Subsequently, after consultative meetings with Green Sectors Line Departments, during the last quarter of 2018, upon identification of production clusters, implementation and operational strategies were

developed for the target districts. Table 21 shows district-wise details of prioritized value chain commodities.

**Table 21. District-wise details of prioritized value chain commodities**

| Tribal district  | Value chain commodity | Number of beneficiaries and PMGs |
|------------------|-----------------------|----------------------------------|
| South Waziristan | Apples                | 25 PMGs, 625 apple farmers       |
|                  | Pine nuts             | 19 PMGs, 475 pine nuts farmers   |
|                  | Tomatoes              | 20 PMGs, 753 tomato farmers      |
| North Waziristan | Tomatoes              | 10 PMGs, 314 tomato farmers      |
|                  | Potatoes              | 12 PMGs, 540 potato farmers      |
|                  | Livestock             | 3 PMGs, 75 livestock framers     |
| Khyber           | Tomatoes              | 11 PMGs, 275 tomato farmers      |
|                  | Livestock             | 5 PMGs, 133 livestock farmers    |

Source: Quarterly progress report (October – December 2020).

### **Apples value chain**

142. To promote the apple value chain in Wana, South Waziristan,<sup>34</sup> the project primarily focused on pre- and post-harvest management. Various studies suggest that more than 35 percent of apples produced in Pakistan is lost due to poor handling at harvest, improper pre-harvest practices and non-availability of essential tools for orchards management (FAO, 2019c).
143. Consequently, to reduce losses in apples and improve its value for enhanced income, the project trained 625 farmers (25 PMGs) in pre- and post-harvest management as an integral component of good agricultural practices (FAO, 2019c). Similarly, the project provided an opportunity to two commission agents and two producers for business-to-business (B2B) exposure visit through the Horticulture Expo held in Lahore (2020). The selected agents and producers used the expo as an opportunity to network with national buyers as well as exporters.
144. In addition, the project distributed pruning tools and corrugated boxes among the target beneficiaries, delivery of which was delayed due to the COVID-19 lockdown. In fact, the project is still awaiting delivery of two harvesting tools, which is expected to be delivered in Q2 of 2021.

### **Potatoes value chain**

145. A total of 540 farmers from Razmak, North Waziristan have been selected for the potato value chain intervention.
146. To this end, the project has distributed high quality potato seeds (*Kuroda*) among the target beneficiaries in Q4 2020 (240 farmers) and subsequently in Q2 of 2021 (300 farmers). In 2021, a training of trainers (TOT) exercise was also conducted for ten leading farmers, whereas the remaining 290 farmers/beneficiaries were trained in pre-harvest management, sowing process of potato seeds, land preparation, improved technology and improved crop management practises. Similarly, one commission agent and one enlisted collector were provided the opportunity to attend the Horticulture Expo in Lahore (2020) for networking national buyers. To equip the farmers with the right tools, the project also plans to distribute toolkits among the beneficiaries. However, procurement of the kit is still pending (FAO, 2021a).

<sup>34</sup> Waziristan, the biggest producer of apples stands second to Baluchistan and contributes 15 percent to the national apple production. Royal gala, red delicious and golden delicious are the famous cultivars grown in the merged districts.

### **Tomatoes value chain**

147. To promote the tomato value chain development in Khyber, South Waziristan, and North Waziristan, the project has thus far supported 45 PMGs (1 440 farmers) through various interventions including provision of high-quality seed (*Syngenta 1359*), trainings on pre- and post-harvest management, provision of post-harvest tools and packing material.<sup>35</sup>
148. According to an internal assessment conducted by FAO, after provision of quality seed and improved management practices, the per acre yield of tomato crop increased five-fold. Similarly, the project beneficiaries also reported a 33 percent increase in income (FAO, n.d.). For instance, a 13-kg box of improved variety tomatoes sold for PKR 1 000, compared to the local variety selling for PKR 750 (FAO, n.d.).

### **Pine nuts value chain**

149. Under this intervention, farmers were trained on entrepreneurship, business management and value chain development. Interactive training modules were used to ensure that trainees understand, retain and apply the learnings and ensure profitability. The trainings focused on farming practices, entrepreneurship and business planning, marketing skills, value addition, and value chain development in general. Exposure visits to markets and market opportunities were also supported.
150. In Q1 of 2021, 100 individuals (50 from North Waziristan and 50 from South Waziristan) were oriented on the potential economic value of NTFPs, in-situ conservation, proper collection, storing, drying, processing, packing and branding for value chain development (FAO, n.d.).

### **Producer marketing groups (PMGs)**

151. Following the completion of the FBS cycle, the groups are mobilized and converted into PMGs, which are the ultimate formation of farmers groups that are organized on the basis of a particular produce (value chain). As of Q4 of 2020, 105 PMGs covering five value chains (tomatoes, potatoes, apples, pine-nuts and livestock) have been formed (FAO, 2020d). PMGs are envisaged to have a collective voice for trading produce (crops) in the marketplace, effectively eliminating the need for a middleman/commission agent.
152. During the evaluation mission's meeting with PMG (tomatoes) members in Khyber, the mission found the PMGs to be rather weak, where members lacked fundamental awareness regarding the basic concept of PMG and their actual *raison d'être*. To become sustainable, the project will need to provide extensive support to the PMGs in order to realize the benefits of collective marketing.

### **Drafting the Livestock Produce and Poultry Marketing Act**

153. According to the latest project update, the fourth draft of the 'Marketing Act of Livestock Produce and Poultry' has been developed and submitted for the review of the Livestock and Dairy Development Department. To arrange consultative workshop three requests have been sent to the Director of Livestock and Dairy Development, pending response.

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<sup>35</sup> Harvesting kits (five plastic bins per beneficiary) and packaging material (150 corrugated box per beneficiary) were provided to 942 tomato farmers including 453 from South Waziristan, 225 from North Waziristan and 275 from District Khyber.

### **3.3.4.5 Linkage development and marketing workshops to involve and mobilize private sector and service providers**

154. To facilitate linkages, FAO implemented multiple activities including exposure visits, vertical and horizontal linkage development with input suppliers and buyers. According to project personnel, the interventions encompassed 15 events involving 363 farmers who were able to develop linkages. Among these are the exposure visit to the Horticulture Expo 2019 and 2020 in Lahore involving progressive farmers, dealers, commission agents and agricultural extension staff. As a result, the FSC staff and extension agents expressed improved confidence in guiding farmers in using quality inputs and services. The visit also linked fruit and vegetable market intermediaries with large market players and local service providers for effective marketing for wholesale, retail, exporters and processors. Details of some of these interventions are elaborated below.

#### ***Market linkages***

155. In the second quarter of 2020, facilitated by USAID, the project arranged a joint visit of private companies including Candy Land<sup>36</sup> and Reap Agro<sup>37</sup> to visit the potato growers of North Waziristan. While the first visit did not yield any positive outcome, the project hopes that once the farmers become adept at applying modern cultivation techniques and increase volumes, the beneficiaries will have a better chance at exploring linkages in the private sector. According to project personnel, the representatives of the companies found the area of North Waziristan highly conducive for potato production. However, Reap Agro was not satisfied with the traditional sowing methods of potatoes in the area, which ultimately led to limited production.

#### ***Exposure visits***

156. In the last quarter of 2020, an exposure visit to Lahore and Sheikhpura was arranged for the high tunnel tomato farmers from all project districts. The purpose of the visit was to orient farmers on collective marketing, use of modern/improved technology in high tunnel and walk-in tunnel farming, auction process, vegetables grading, packaging material and commission percentage on sale of vegetables. During the exposure visit, the farmers were also linked with input suppliers including Vertigrow Agri Business, Haji son's, Moregreen seeds and Arayen traders (FAO, 2021a).

### **3.3.4.6 Productive skill and capacity development initiatives for value chain stakeholder**

157. To strengthen the capacity of value chain stakeholders, the project arranged a series of trainings as summarized in Table 22 below.

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<sup>36</sup> Candyland is recognized as a leader in the confectionery market of Pakistan, offering a large selection of products in more than 30 countries around the world (Candyland, n.d.).

<sup>37</sup> Reap Agro is working to improve the lives of smallholder farmers by providing timely interest-free financing to support and facilitate them, in the form of inputs and easy credit (Reap Agro, n.d.).

**Table 22. Details of capacity development initiatives**

| Training topic  | Target beneficiary   | Duration location   | Total participants         |
|---|--|---|----------------------------|
| Agro dealers training   | Dealers from Merged Districts  | 3 days, Peshawar  | 36                         |
| Entrepreneurship, marketing skills and value chain development  | Agriculture extension staff  | 3 days, Peshawar  | 36                         |
| Improved pre-harvest management   | Apple farmers (South Waziristan)   | To be confirmed   | 625                        |
| Marketing and business planning   | FSC staff and Market Committee members                                       | 3 days, North and South Waziristan FSC  | 23                         |
| Capacity building of NTFP farmers   | Pine-nut producers   | Dera Ismail Khan, Bannu   | 100                        |
| Entrepreneurship, business management and value chain development   | 30 PMGs<br>Tomatoes, apples, pine-nuts                                       | 3 days, FSC South Waziristan  | 750                        |
| Entrepreneurship, business management and value chain development   | 10 PMGs<br>Tomatoes  | 3 days, FSC Bara  | 275                        |
| Enterprises development training for walk-in tunnels and nursery growers training on livestock management                     | Tomato and apple growers<br>livestock farmers                                | 3 days, Bannu, 5 days training in 3 batches from 15 April to 3 May 2019 at Peshawar           | 29<br>75<br>Sub-total 104  |
| Enterprises development training for walk in tunnel and nursery growers training of technicians in AI of cattle and buffaloes | Tomato growers, AI technicians of Livestock and Dairy Development Department | 3 days, Dikhan, 2 weeks training in 4 batches from 8 April 2019 to 3 July 2019 at UVAS Lahore | 31<br>100<br>Sub-total 131 |
| Enterprises development training for walk-in tunnel and nursery growers   | Tomato growers   | 3 days, Peshawar  | 24                         |
| Training in fruits plants nursery management and marketing on backyard poultry management for female poultry farmers          | Nursery growers beneficiaries of backyard poultry packages                   | 5 days, in the villages of target districts from 15 April 2019 to 25 April 2019               | 15<br>240<br>Sub-total 255 |

Source: Quarterly progress report (July – September 2019).

158. To conduct various business-related trainings, FAO had initially signed an LOA with the Institute of Management Studies on 2 August 2019. According to the agreement, Institute of Management Sciences (IMS), Peshawar was contracted to provide training in entrepreneurship, business management and value chain development. However, the project ended up hiring external resources to conduct the trainings as IMS could not secure a No Objection Certificate (NOC), which resulted in the termination of the LOA (FAO, 2020a).

### **3.3.4.7 Dissemination of information on agricultural techniques, practices, and markets via mass media programming such as radio shows and SMS messages**

159. To fill the knowledge gap and promote smart agriculture practices in beneficiary communities, the project printed various information, education and communication (IEC) materials for both agriculture and livestock sectors. Some of these include in-depth cropping calendars, vaccination calendars and fodder calendars. In addition, the project has distributed 750 copies of the farmer business school manual, the facilitators' guide and the farmers' handbook, and 250 copies of the PMGs manual for the use of target communities and facilitators (FAO, 2021a). The project also tried to use electronic media including radios for broadcasting scheduled programmes in the NMDs, however due to security concerns the project was not given the permission (FAO, 2021a).

160. In addition to the above interventions, although not budgeted in the original workplan, FAO provided assistance to the IT section of the Bureau of Agriculture Information. The request was made by the Government of Khyber Pakhtunkhwa in a meeting held with the Secretary of Agriculture of Khyber Pakhtunkhwa in December 2019 (FAO, 2019d). During subsequent consultations, it was decided that FAO will assist the Bureau of Agriculture Information (working under the Director General of Agri Extension Khyber Pakhtunkhwa) with acquisition of IT related equipment for broadening their outreach to NMDs through SMS service. The objective of the service is to broadcast key messages and crop guidelines to the NMDs. As a result, the project procured a primary rate interface (PRI) equipment for USD 38 491 and handed over to the provincial Department of Agriculture.
161. During the evaluation mission's meeting with the Secretary of Agriculture, the support provided by FAO and USAID in strengthening the capacity of the agriculture extension department was highly appreciated.

#### **3.3.4.8 Farmer field schools (FFS)/livestock FFS**

162. To improve farmers' knowledge and capacities in the best agriculture techniques, the project has completed 117 FFS benefitting 1 680 participants in horticulture, and 43 Livestock FFS benefitting 787 participants in cattle and poultry management.
163. In the second quarter of 2020, the established FFS platforms have also been used to create awareness on the prevention and mitigation of COVID-19 transmission risks and locust management (FAO, 2020d).

#### **3.3.4.9 Women open schools (WOS)**

164. Keeping in line with the conservative norms of the target districts, a total of 55 women open schools (WOS) have been established aimed at benefitting 1 244 women. The WOS are modelled on the concept of FFS/Livestock FFS in which women are trained in agriculture best practices and livestock management (FAO, 2020d).
165. In terms of qualitative impact, the evaluation mission found an uptake of knowledge received in different trainings among both male and female beneficiaries across target districts.

#### **3.3.4.10 Farmer business schools**

166. Based on the graduation model, the FFS/WOS are converted to farmer business schools in which they gain in-depth knowledge on farming enterprises, overall farm operations, and best practices for profitability and enhanced incomes. According to the project, 46 farmer business schools have been formed until Q4 2020, covering 982 beneficiaries.



**Table 23. Details of 42 farmer business schools formed until Q4 2020**

| District  | Farmer business schools | Beneficiaries | Technical area/enterprises                       | Quarter/year of establishment |
|---|-------------------------|---------------|--|-------------------------------|
| Khyber  | 3                       | 67            | Poultry and livestock                            | Q4-2019                       |
| North Waziristan  | 3                       | 60            | Poultry and livestock                            | Q4-2019                       |
| Khyber  | 1                       | 25            | Livestock  | Q1-2020                       |
| Khyber  | 1                       | 20            | Walk-in tunnels                                  | Q1-2020                       |
| North Waziristan  | 1                       | 25            | Vegetables                                       | Q1-2020                       |
| South Waziristan  | 1                       | 25            | Tomatoes   | Q1-2020                       |
| Khyber  | 1                       | 20            | Walk-in tunnels                                  | Q2-2020                       |
| Khyber  | 2                       | 50            | Wheat  | Q2-2020                       |
| Khyber  | 1                       | 25            | Fresh beans                                      | Q2-2020                       |
| Khyber  | 2                       | 40            | Poultry and Livestock                            | Q2-2020                       |
| Khyber  | 2                       | 53            | Poultry and Livestock                            | Q2-2020                       |
| South Waziristan  | 1                       | 18            | Vegetables                                       | Q2-2020                       |
| Orakzai   | 1                       | 20            | Tunnel farming                                   | Q2-2020                       |
| Sub-total   | 20                      | 448           |  |                               |
| New farmer business schools established in the third quarter (July-September 2020) and fourth quarter (October-December 2020) |                         |               |  |                               |
| Orakzai   | 8                       | 123           | Vegetables, sunflower, tunnel farming, livestock | Q3-2020                       |
| South Waziristan  | 4                       | 60            | Vegetables, tunnel farming                       | Q3-2020                       |
| North Waziristan  | 6                       | 155           | Vegetables, tunnel farming, livestock            | Q3-2020                       |
| Khyber  | 5                       | 130           | Vegetables, tunnel farming, livestock            | Q3-2020                       |
| Khyber  | 2                       | 44            | Tunnel farming                                   | Q4-2020                       |
| South Waziristan  | 1                       | 22            | General agri business                            | Q4-2020                       |
| Sub-Total   | 26                      | 534           |  |                               |
| <b>Total</b>  | <b>46</b>               | <b>982</b>    |  |                               |

Source: Quarterly progress reports.

## 4. Gender analysis

167. Deeply rooted in patriarchal culture, the NMDs are characterized with a low ranking on the gender equality index. Some of the examples that highlight these inequalities include women's lack of access to information and livelihood opportunities. According to a recent study conducted by UN Women, women's access to information remains restricted with 87 percent having no access to any sort of media (television, radio, newspapers) (Khan, 2020). Similarly, women from the tribal districts are virtually absent from the economic workforce with only 5.9 percent in the labor force (FATA Secretariat, Bureau of Statistics, 2015). Consequently, the social norm of male dominance in almost every sphere of economic and political life makes gender equality promotion a highly difficult task. In spite of these challenges, the project made an effort in reflecting gender equality considerations through multiple activities such as provision of poultry packages, and WOS trainings. Moreover, in line with the social norms of the project area, the project also engaged female social mobilizers and facilitators to reach out to women beneficiaries.
168. However, while FAO strived to ensure gender inclusion in different facets of the project, according to the findings of the evaluation team the project lacked focus in terms of incorporating gender-specific interventions in the project design. For instance, with the exception of provision of poultry packages to female beneficiaries, the project does not have any other interventions designed specifically for the benefit of women. Furthermore, in addition to a lack of women-specific interventions, the project also does not have gender-segregated targets for any of the other key interventions such as provision of seed, support to small enterprises and breed improvement interventions, etc., which makes it difficult to assess the impact of different interventions on overall resilience of women beneficiaries.
169. Given the abysmal socio-economic status of women in NMDs, the evaluation team noted that despite a fragmented project approach, female beneficiaries displayed uptake of knowledge gained during the WOS sessions as well as an appreciation for whatever little support they received during the project. This essentially indicates that if provided sufficient support, women have the capacity to capitalize on productive assets and other interventions, which can contribute to the overall well-being of the female beneficiaries in the target districts.



## 5. Conclusions and recommendations

170. Despite working in one of the most difficult operating environments, the project has made significant strides towards achieving the desired objective of contributing to the stabilization of the area through sustainable agriculture development. In particular, introduction of tunnel farming in the NMDs for the very first time, strengthening small agri- and livestock-based enterprises, containing serious livestock disease outbreaks, and contributing to productivity gains through rehabilitation of irrigation schemes have received an overwhelmingly positive response from the beneficiaries and government stakeholders alike.
171. However, to ensure effective implementation and long-term sustainability of these key interventions, the evaluation team hereby presents a preliminary list of conclusions and recommendations.

### 5.1 Conclusions

#### **Conclusion 1. Supply of inputs to beneficiaries faced extensive delays and setbacks and delivery of some packages remains incomplete.**

172. Implementation of the majority of critical interventions (such as provision of crop inputs and livestock) were delayed in part due to FAO's internal procurement complexities as well as non-compliant vendors supplying low quality goods. This issue was further aggravated by the on-set of COVID-19, which caused additional delays as a result of country-wide lockdowns, consequently hampering efforts to provide timely assistance to the beneficiaries. The inadvertent delays on the project management's part reduce the potential effectiveness of the project and also affects the project's painstakingly established goodwill with the communities.

#### **Conclusion 2. The FAO's intervention contributed to a successful rehabilitation of irrigation schemes, laying foundations for increased land productivity. At the same time, sustainability of these schemes is not ensured due to the absence of operation and maintenance plans and responsible local associations.**

173. The rehabilitated schemes are expected to accrue major benefits to farmers including reduced conveyance losses, fewer water disputes among farmers and reduced irrigation time while improving overall agricultural productivity. However, against a target of 20 WUAs, only ten were formed in North Waziristan by the Irrigation Department and only five of these were provided training. Whereas, due to the expiration of LOAs with the Irrigation Department, FAO was to form and train the remaining 15 WUAs, including ten in North Waziristan and five in South Waziristan as well as 13 newly added schemes in Khyber. However, this activity remains incomplete.

#### **Conclusion 3. Gender-focused interventions have received very limited attention in the project design and low priority during implementation.**

174. Despite significant role played by women in the household nutrition and local production, the design lacked gender-focused interventions and gender-segregated targets. While during implementation, despite being relatively small in size, the women-focused activity of poultry package distribution remains incomplete.

**Conclusion 4. Due to the project's continued support, farmers are showing steady progress towards strengthening individual enterprises. However, their capacity to operate as producer marketing groups (PMGs) across various value chains remain weak.**

175. The project has formed 105 PMGs covering five value chains (tomatoes, potatoes, apples, pine-nuts and livestock) (FAO, 2020d). PMGs are envisaged to have a collective voice for trading produce (crops) in the marketplace, effectively eliminating the need for a middleman/commission agent. However, significant capacity gaps remain among these groups, with interviewed members not being aware of the basic purpose and function of these groups.

**Conclusion 5. The current reporting format of quarterly progress reports limits the project's ability to track the progress of individual activities in a succinct manner.**

176. The present progress reporting formats are not user friendly. Further, given the extensive number of activities for which progress has to be reported on a quarterly basis, the emphasis is on narrative progress while demonstration of achievements against project goals and outcomes remains weak.

## **5.2 Recommendations**

**Recommendation 1. To minimize procurement-related delays the FAO needs to continuously refine its procurement strategies and approaches.**

177. Progress on a number of activities was hampered due to procurement challenges, including FAO national and international procurement processes, lack of reliable vendors, and COVID-19-related logistic challenges. To avoid this situation to the extent possible, it is recommended that the FAO undertake a review of its procurement processes for emergency and rehabilitation programmes/projects, continuously build a database of reliable vendors in the country and strengthen quality control mechanisms for delivered goods. Moreover, to ensure timely assistance to beneficiaries, it is recommended that project management teams incorporate anticipated procurement delays into future activity design and planning.

**Recommendation 2. To ensure long-term sustainability, the project's irrigation rehabilitation schemes need to be supported by well-designed management, operation and maintenance systems that promote efficiency gains and sustainability of the irrigation networks.**

178. To ensure continued efficiency gains of the community infrastructure schemes, it is recommended for project design and implementation teams of the FAO and Government of Khyber Pakhtunkhwa to introduce measures such as participatory O&M plans and WUAs from the very onset of planning these activities, as said measures are critical for the sustainability of the rehabilitated irrigation schemes in the target districts.

**Recommendation 3. The project team should develop targeted interventions that take into account gender-related inequalities, particularly in the areas of improving nutrition and enhancing livelihood opportunities among the female beneficiaries.**

179. Women constitute nearly half the adult population and play a crucial role in household food security by tending to livestock and kitchen gardens, etc. However, engaging them in development initiatives requires focusing on niche activities and customized implementation approaches. Consequently, it is recommended that interventions are not only designed by project design and implementation teams in accordance with the unique needs of women, but also have

a strong link with broader outcomes, such as improved nutrition and enhanced livelihood opportunities among female beneficiaries. Also, in view of women's highly marginalized status with rather negligible access to productive resources, it is critical that support to this beneficiary group is expedited. Moreover, to ensure equitable benefits for women, activity targets set in the logical framework should be gender disaggregated.

**Recommendation 4. Capacity building is a key to ensuring the effectiveness of PMGs.**

180. Since the concept of PMG is new to the target areas, it is recommended that special attention is given to the continued capacity building of PMGs through training in PMG management and linkage development.

**Recommendation 5. There is a need to review formats of project progress reporting.**

181. At present, the project's quarterly progress reports are highly fragmented and also lack reporting against goal- and outcome-level indicators. It is therefore recommended that the FAO project management, in collaboration with USAID project manager, reviews the reporting formats for improved utility. In this regard, it would be helpful to borrow from reporting formats of other similar projects implemented by FAO or funded by USAID.

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## Appendix 1. People interviewed

| Last name     | First name | Position   | District   |
|---------------|------------|--|--|
| Ahmed         | Tariq      | M&E Officer, FAO Peshawar                            | FAO Peshawar                                       |
| Alamzeb       |            | D. G Livestock Extension, NMDs                       | Governmentt of Khyber Pakhtunkhwa, Peshawar        |
| Islam         |            | Livestock Expert                                     | FAO Peshawar                                       |
| Israr         | Muhammad   | Secretary Agriculture, Khyber Pakhtunkhwa            | Government of Khyber Pakhtunkhwa, Peshawar         |
| Kamal         | Abid       | D.G Agriculture Extension, Khyber Pakhtunkhwa        | Government of Khyber Pakhtunkhwa, Peshawar         |
| Khalid        | Muhammad   | Deputy Commissioner                                  | District Orakzai, Government of Khyber Pakhtunkhwa |
| Khalid Younus | Muhammad   | District Director, Livestock Extension               | District Orakzai, Government of Khyber Pakhtunkhwa |
| Khan          | Majid      | Project Coordinator, FAO Peshawar                    | FAO Peshawar                                       |
| Khan          | Sami       | Social Organizer                                     | FAO Field Staff District Orakzai                   |
| Khattak       | Ruqia      | Value Chain Expert                                   | FAO Peshawar                                       |
| Rehman        | Mujibur    | Deputy Programme Coordinator, Khyber Pakhtunkhwa/OIC | FAO Peshawar                                       |
| Rose          | Mohsin     | Project Management Specialist                        | USAID  |
| Ullah Bangash | Irfan      | District Director, Agriculture Extension             | District Orakzai, Government of Khyber Pakhtunkhwa |
| Wazir         | Numan      | District Forest Officer                              | District Orakzai, Government of Khyber Pakhtunkhwa |
| Wazir         | Sajjad     | Director, Livestock Extension, Khyber                | District Khyber, Government of Khyber Pakhtunkhwa  |
|               |            | District Director, Livestock                         | District Khyber, Government of Khyber Pakhtunkhwa  |

## Appendix 2. Evaluation matrix

| Sub-questions   | Elements of analysis and possible indicators  | Data collection methods and sources  |
|---|---|--|
| <b>Evaluation Question 1 (Strategic relevance): To what extent were the project design and intended objectives relevant to the needs and priorities of the target areas?</b>  |   |  |
| <ol style="list-style-type: none"> <li>1. Has the project design been participatory with all the key stakeholders?</li> <li>2. Was the project design and targeting based on evidence and through analysis of the needs of the beneficiaries?</li> <li>3. Has the project design been meaningfully informed by the 'context-analysis' undertaken by USAID (donors) during the project's preparation phase?</li> </ol> | <ol style="list-style-type: none"> <li>i. Need to explain how the project was initially conceptualized and designed. Explain the process of consultation, data review and formulation which led to the project document.</li> <li>ii. Provide evidence and references to which key documents or data sources were used to identify the target beneficiaries.</li> <li>iii. Collect the views of the key development stakeholders in the concern merged districts to understand whether FAO took into consideration their views in the project design. Similarly, consult the donos, FAO Peshawar and FAO Islamabad concerned personnel whether the project design made good use of FAO's knowledge into account.</li> </ol>   | <ol style="list-style-type: none"> <li>i. Key informant interviews (e.g., concern merged district staff of line departments, FAO provincial and district personnel, Agriculture and P&amp;D Secretariat, donors, etc.).</li> <li>ii. Document reviews (e.g., FATA Sustainable Return and Rehabilitation Strategy; FAO CPF 2018–2022; FAO Strategic Objectives, Integrated Phase Classification reports, etc.).</li> <li>iii. Tribal decade strategy.</li> <li>iv. FAO guidance on forced migration and protracted crises – A multilayered approach.</li> </ol> |
| <b>Evaluation Question 2 (Strategic relevance): To what extent has the project's design and implementation incorporated inclusive programming approaches and contributed to addressing gender considerations and needs of vulnerable groups (minorities, people with disabilities, others)?</b>   |   |  |
| <ol style="list-style-type: none"> <li>1. Was the project design gender-sensitive in terms of targeted interventions?</li> <li>2. Has the project design taken the needs of minorities and persons with disabilities into consideration?</li> </ol>   | <ol style="list-style-type: none"> <li>i. Did the project undertake a gender analysis at the inception or design phase of the project? Assess the level of analysis that fed into the project design. Assess the ration of interventions targeted at men and women beneficiaries to determine equitable access.</li> <li>ii. Check different types of interventions targeted at female beneficiaries. Provide evidence that the selected interventions are gender sensitive. To what extent are the interventions relevant in terms of income generation opportunities, especially for women-headed households?</li> <li>iii. Assess the number of minorities and persons with disability in the area.</li> <li>iv. Explain if the project has prioritized the needs of these vulnerable groups such as proposing alternate livelihood opportunities, etc.</li> </ol> | <ol style="list-style-type: none"> <li>i. Document review (e.g., FAO Gender Policy, FAO-Pakistan country gender assessment, other studies and assessments on gender issues by other organizations, etc.).</li> <li>ii. Key informant interviews (e.g., FAO Pakistan Gender Focal Point, etc.).</li> </ol>  |
| <b>Evaluation Question 3 (Effectiveness and contribution to the results): To what extent have the project's activities contributed to stabilization and poverty reduction through sustainable agricultural productivity in the target areas and to the milestones of recovery and economic growth set in the Tribal Decades Strategy (TDS) and Accelerated Implementation Plan (AIP)?</b>                             |   |  |
| <ol style="list-style-type: none"> <li>1. What progress has the project made towards achieving its intended two outcomes?</li> <li>2. To what extent has project achieved the targets established in the log frame?</li> </ol>  | <ol style="list-style-type: none"> <li>i. Provide evidence that the project has contributed to the resilience of tribal communities and returnees through food production resumed and agriculture-based livelihood restored and improved.</li> <li>ii. Provide evidence that the project has contributed toward tribal</li> </ol>   | <ol style="list-style-type: none"> <li>i. Desk review (project document, M&amp;E database, M&amp;E reports, Log frame, and other progress review reports).</li> </ol>  |

| Sub-questions   | Elements of analysis and possible indicators  | Data collection methods and sources  |
|---|---|--|
| <p>3. What were the enabling factors that led to positive results and what were the challenges the project faced in achieving these targets?</p> <p>4. To what extent did the project actually achieve a gender-sensitive approach and what results and lessons can be drawn?</p> <p>5. Did the project, directly or indirectly, mitigate (or exacerbate) any potential conflicts among different population groups (e.g., between different beneficiary groups or between beneficiaries and non-beneficiaries)?</p>  | <p>communities through market structure and services restored/established.</p> <p>iii. Assess the projects' quantitative progress against the targets set out in the log frame and elaborate on hindrances where the project could not achieve its targets.</p> <p>iv. Assess the extent to which any intended gender-sensitive approach, and any specific provisions for vulnerable groups (e.g., persons with disabilities) were actually carried out and with what results.</p>  | <p>ii. KIs and interviews with stakeholders (e.g., line departments and FAO district provincial personnel).</p>  |
| <b>Evaluation Question 4 (Efficiency): To what extent have the project's implementation and coordination arrangements been efficient in delivery the project's outputs?</b>   |   |  |
| <p>1. Did the project stay on track in terms of timelines?</p> <p>2. What were some of the challenges the project faced in achievement of the overall objectives?</p> <p>3. Did the project have sufficient resources for implementation such as human resources, finances and time to effectively achieve the programme objectives?</p> <p>4. To support implementation efforts did the project have a specific coordination mechanism with key stakeholders (e.g., FAOR, relevant line departments at district- and provincial-level)?</p> <p>5. Does the project have a robust M&amp;E system?</p> | <p>i. Determine if the project experienced any delays, and if yes, to what extent and did delays hinder the achievement of the project's objectives (e.g., COVID-19, lack of local capacity, delayed approvals, issues of coordination and lack of finances/delayed releases of finances).</p> <p>ii. Assess the measures which were put in place to overcome any of these challenges.</p> <p>iii. Check if any policies and institutional priorities changed during project implementation and how this affected the capacity of the project to deliver on the established outcomes (e.g., delayed releases finances and or reduced finances).</p> <p>iv. Explain the coordination mechanism between FAO and other UN/donor agencies (USAID, etc.).</p> <p>v. Assess how effective the FAOR and other stakeholders' support to the project was.</p> <p>vi. Indicators to be assessed may include donor's coordination, approval timelines and support of M&amp;E, etc.</p> <p>vii. Explain the coordination mechanism with the provincial government's administrative departments like P&amp;D, Agriculture and Irrigation Departments, etc.</p> <p>viii. Explain the coordination with district administrations and district line departments like Agriculture, Livestock, Irrigation Department, etc.</p> <p>ix. Assess the effectiveness of the M&amp;E system based on the following indicators: baseline information, SMART indicators, gender-segregated indicators, results tracking and adaptive management, etc.</p> <p>x. Reveal evidence of timely reporting and assess reports in terms of quality</p> | <p>i. Interviews with key project personnel responsible for implementation at district- and provincial-level (FAO/USAID, etc.).</p> <p>ii. Interviews with relevant line departments.</p> <p>iii. Document reviews, progress report reviews, M&amp;E database and M&amp;E reports.</p> <p>iv. Views of P&amp;D, Agriculture, Livestock Department.</p> <p>v. Views of provincial head of line departments.</p> <p>vi. Views of district administrations.</p> |

| Sub-questions   | Elements of analysis and possible indicators  | Data collection methods and sources  |
|---|---|--|
|   | (based on discussions and feedback from various stakeholders) and Grievances Redressal Mechanism (GRM.)   |  |
| <b>Evaluation Question 5 (Impact): To what extent has the project contributed to the development of capacities among communities and line department of the involved government agencies, at both individual and institutional levels?</b>  |   |  |
| <ol style="list-style-type: none"> <li>1. Has the project contributed to improved agricultural practices among the target beneficiaries?</li> <li>2. Has the project contributed to the knowledge of beneficiaries in terms of improved agricultural production and expanded livelihood opportunities?</li> <li>3. Was there any undesirable or unexpected impact as a result of project interventions?</li> <li>4. How has the project contributed to the capacity development of line departments?</li> </ol> | <ol style="list-style-type: none"> <li>i. Check for evidence of increased agriculture productivity as a result of project interventions (improved inputs, improved breeds, lined watercourses, etc.).</li> <li>ii. Expanded opportunities for income generation among beneficiaries. (e.g., off-season vegetables, improved livestock breeds, etc.).</li> <li>iii. Knowledge of CSA practices among beneficiaries (e.g., improved water management, intercropping, crop-livestock management, etc.).</li> <li>iv. Assess if there was any negative impact on the lives of beneficiaries. (e.g., increased workload for women beneficiaries, costly O&amp;M, child labor).</li> <li>v. Evidence for improved capacity of line departments in terms of planning, outreach and delivery (e.g., improved infrastructure, provision of technical inputs, workshops/seminars, development of policy and knowledge products, etc.).</li> </ol> | <ol style="list-style-type: none"> <li>i. Discussion with beneficiaries.</li> <li>ii. Interviews with KIIs, especially with relevant line departments (i.e., Agriculture, Livestock and Irrigation/On Farm Water Management (OFWM), etc.).</li> <li>iii. Observations in the field and photos, etc.</li> </ol> |
| <b>Evaluation Question 6 (Coherence): To what extent has the project demonstrated coherence with other FAO, donor-funded and government projects in the target districts as well as adherence to the One UN paradigm?</b>   |   |  |
| <ol style="list-style-type: none"> <li>1. What has the project contributed to the overall objective of the USAID (donor) joint programme?</li> <li>2. Do the project interventions leverage on other FAO projects in the target districts?</li> <li>3. Do the project interventions/activities leverage on government projects being implemented in the target districts?</li> </ol>  | <ol style="list-style-type: none"> <li>i. Assess if the project has interlinked interventions with other projects under the joint UN programme.</li> <li>ii. Assess if the project's same interventions/activities also undertaken in other projects either FAO or other donor or government.</li> <li>iii. Determine if there are any complementarities of the project with other donor-funded projects being implemented by FAO. FAO is the only UN agency with direct access to the NMDs, and previously in FATA as well – what have been the determinants of this and how is FAO using this unique position?</li> <li>iv. Document key observations and lessons learned.</li> </ol>   | <ol style="list-style-type: none"> <li>i. KIIs (both district and provincial FAO project personnel).</li> <li>ii. KIIs' (both district and provincial line department personnel).</li> </ol>   |
| <b>Evaluation Question 7 (Relevance/Impact): How has the project adapted to the onset of the COVID-19 pandemic and what lessons can be drawn for agriculture and food security programmes aiming at alleviating the negative impacts of the pandemic?</b>   |   |  |
| <ol style="list-style-type: none"> <li>1. Has the project introduced any tangible measures to minimize the impact of COVID-19 on food security?</li> <li>2. Did the interventions envisaged at the design stage in any way help mitigate the shocks on</li> </ol>   | <ol style="list-style-type: none"> <li>i. Assess the nature of measures (short-, medium- and long-term) introduced by the project to tackle food insecurity in general, and amongst the most vulnerable groups in particular (e.g., rapid emergency agriculture and food system support, nutrition-specific support, cash for work, stimulus package, etc.).</li> </ol>   | <ol style="list-style-type: none"> <li>i. COVID-19 Pakistan: Socio-economic Framework. (by UN)</li> <li>ii. NAP for COVID-19 (Government of Pakistan).</li> <li>iii. KIIs (representatives of donors, and project personnel).</li> </ol>   |

Appendix 2. Evaluation matrix

| <b>Sub-questions</b>   | <b>Elements of analysis and possible indicators</b>   | <b>Data collection methods and sources</b>  |
|--|---|---|
| <p>agriculture production systems brought on by COVID-19?</p> <p>3. What lessons learned can inform similar FAO projects in the event of pandemic emergencies (best practices and innovations, that can be up scaled up/scaled out)?</p> | <p>ii. Check if the implemented measures are in line with the UN and Government of Pakistan guidelines on support during the pandemic.</p> <p>iii. Assess elements of resilience among the beneficiaries, such as food security during the pandemic (as a result of increased yields, provision of livestock, strengthened value chains, kitchen gardening, etc.).</p> <p>iv. Assess which specific interventions had a greater (lesser) impact in terms of minimizing shocks on food security/livelihoods.</p> | <p>iv. FGDs with beneficiaries (men and women).</p> <p>v. KIIs with line departments (i.e., Agriculture, Livestock, Irrigation/OFWM, etc.).</p> |

## Appendix 3. Beneficiaries selection criteria

### For livestock-related interventions under FAO

In order to ensure effective assistance delivery to the freshly returned TDPs and maintain transparency at community and stakeholder's level, apex/umbrella village-level community organizations called village organizations (VOs) will be formed, having offshoots at sub-village/hamlet/interest groups-level called community-based organizations (CBOs). The village-level apex committee, VO, will have a diverse typology/composition and representation from each clan, sub-clan/tribe/sub-tribe of the village, hamlets and scattered populations of returnees.

FAO personnel in close liaison and consultation with the VOs/CBOs will select beneficiaries per the following criteria:

- i. Beneficiary's selection criteria for milk collection kits:
  - the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has history of livestock rearing as primary source of their livelihood and is possessing at least two or three lactating/pregnant large ruminants;
  - the beneficiary household has experience in marketing of dairy products and is willing to market surplus milk/other products;
  - the beneficiary household is willing to participate in capacity building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged;
  - the beneficiary household is willing to regularly vaccinate and de-worm the animal and keep close interaction with the nearest veterinary hospital; and
  - preference will be given to vulnerable small farmers rearing lactating/pregnant ruminants, especially widows/orphans (less than 20 years) and elderly-headed families.
- ii. Beneficiary's selection criteria for fodder seeds:
  - the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has a history of livestock rearing and possess at least three large ruminants and have not been assisted for similar support under previous project(s);
  - the beneficiary household has at least one acre of cultivated land either on self-ownership, lease basis or rented basis (tenants) in the area for the production of fodder crops to feed the animal;
  - the beneficiary household is willing to participate in capacity building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged;
  - the beneficiary household is willing to regularly vaccinate and de-worm the animal and keep close interaction with the nearest veterinary hospital;
  - the beneficiary household will allow the FAO monitoring team to visit his/her lands/agriculture field for verification and physical check-up of fodders; and
  - preference will be given to families headed by widows/orphans (less than 20 years) and elderly-headed or disable persons.
- iii. Beneficiary's selection criteria for poultry package:

- the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has history of poultry rearing as a source of livelihood, has lost poultry during displacement/conflict and has ample space and drinking water available for poultry keeping;
  - the beneficiary household has limited resources to purchase pullets, feed and necessary equipment to restore backyard poultry activities and small poultry enterprises;
  - the beneficiary household is willing to participate in capacity-building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged;
  - the beneficiary household is willing to regularly vaccinate the birds and keep close interaction with the nearest veterinary hospital;
  - the beneficiary household is willing to keep poultry for their own consumption and not sell it out as well as marketing of surplus eggs as income generation activity;
  - the beneficiary household is willing to allow the FAO monitoring team to visit his/her house for verification and physical check-up of birds; and
  - preference will be given to families headed by widows/orphans (less than 20 years) and elderly-headed or disable persons.
- iv. Beneficiary's selection criteria for animals vaccination and de-worming:
- the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has a history of livestock rearing and possesses at least two large and/or two small ruminants;
  - the beneficiary household is willing to participate in capacity-building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged;
  - the beneficiary household is willing to regularly vaccinate and de-worm the animal and keep close interaction with the nearest veterinary hospital;
  - the beneficiary household will allow the FAO monitoring team to visit his/her house for verification and physical check-up of animals; and
  - preference will be given to families headed by widows/orphans (less than 20 years) and elderly-headed or disable persons.
- v. Beneficiary's selection criteria for milk sale points:
- the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has a history of marketing milk and dairy products as the primary source of their livelihood and is presently engaged in this business;
  - the beneficiary household has a dairy shop/sale point in the market area and has limited resources to purchase the requisite kits to upscale his/her business to the market requirements;
  - the beneficiary household will sign an agreement with three witnesses that he/she will use the kits for the agreed purpose and will not sell it out nor gift it to other persons for at least three years, and if found so guilty, will re-pay the price of the machinery/equipment along with transportation charges;



- the beneficiary household is willing to participate in capacity-building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged; and
  - preference will be given to vulnerable entrepreneurs, especially widows/orphans (less than 20 years) and elderly-headed families.
- vi. Beneficiary's selection criteria for milk collection and marketing units:
- the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has a history of marketing milk and dairy products as the primary source of their livelihood and is presently engaged in this business;
  - the beneficiary household is collecting milk from local farmers or bringing bulk milk from the outer markets of settled districts and selling/distributing in the local market;
  - the beneficiary household has a dairy shop/sale point in the market area and has limited resources to purchase the requisite kits to upscale his/her business to the market requirements;
  - the beneficiary household has electricity supply connected to his shop and is willing to afford/pay the electricity cost for running the requisite milk cooling tanks/other machinery;
  - the beneficiary household will sign an agreement with three witnesses that he/she will use the machinery/equipment for the agreed purpose and will not sell it out nor gift it to other persons for at least three years, and if found so guilty, will re-pay the price of the machinery/equipment along with transportation charges;
  - the beneficiary household is willing to participate in capacity-building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged; and
  - preference will be given to vulnerable entrepreneurs, especially widows/orphans (less than 20 years) and elderly-headed families.
- vii. Beneficiary's selection criteria for establishment of model meat sale point:
- the beneficiary household/family must be a permanent resident of the target agency/area, identified as recently returned TDP and affiliated with the VO/CBO of the village;
  - the beneficiary household has a history of marketing meat/meat products as the primary source of their livelihood and is presently engaged in this business;
  - the beneficiary household has a meat shop/sale point in the market area and has limited resources to purchase the requisite kits to upscale his/her business to the market requirements;
  - the beneficiary household is willing to afford/pay the electricity cost for running the requisite equipment/machinery;
  - the beneficiary household will sign an agreement with three witnesses that he/she will use the machinery/equipment for the agreed purpose and will not sell it out nor gift it to other persons for at least three years, and if found so guilty, will re-pay the price of the machinery/equipment along with transportation charges;
  - the beneficiary household is willing to participate in capacity building events/training (livestock FFS, farmer business schools, PMGs) as and when arranged; and
  - preference will be given to vulnerable entrepreneurs, especially widows/orphans (less than 20 years) and elderly-headed families.

Office of Evaluation  
[evaluation@fao.org](mailto:evaluation@fao.org)  
[www.fao.org/evaluation](http://www.fao.org/evaluation)

**Food and Agriculture Organization of the United Nations**  
Rome, Italy