Community Based Agriculture Support Programme "Plus" (CASP+)

Annex 26. Complementary information to Section B.3

Complementary information to FP's B.3: detailed project structure and component description

1. The Community-Based Agriculture Support Programme Plus (CASP+) builds on the successful experience of a long IFAD-funded investments in the country, comprising the Khatlon Livelihoods Support Project (KLSP, 2008-2015, US$12.3m)[1,2]; the Livestock and Pasture Development Project[3] phase I and II (LPDP I, 2011-2018, US$15.8m; LPDP II, 2015-2021, US$24.2m); and the Community-Based Agriculture Support Programme[4] (CASP, 2017-2024, US$40.6m). Among them, the most relevant lessons on ecosystem restoration and climate resilience building emerged from the LPDP I and II experience. These projects, operating in remote mountainous areas of Khatlon region, were particularly appreciated for their high participatory approach and inclusion of local communities as a means to empowering them on the decision making process on natural resources, and for their positive economic results on livelihoods, agriculture productivity and rangeland restoration[5]. A recent assessment (IFAD, 2022) showed also that LPDP II approach[6] helped increasing beneficiaries income by 15 percent, improve conditions of rangeland (through improved infrastructure and rotational grazing), and reduce the livestock inventories by 29 percent. The proposed investment under CASP+ represent a step up in further building climate resilience adaptation with significant carbon sequestration potential. CASP+ is expected to add significant value by institutional capacity building at the national level for implementation and monitoring, incorporating climate diagnostics in the planning framework at the district and village level and making investments that will build the resilience of local communities to growing climate risks at the community and household level.

2. The project is expected to increase resilience of at least 80% of the households in the 400 target villages and reach 100,000 target households as direct beneficiaries (equivalent to about 650,000 people), and indirectly reach 2.9 m individuals (details provided in Annex 24 – Breakdown of Project Beneficiaries). ***In addition, the project will contribute to the***

[1] The KLSP was the first IFAD-funded project in the country, and promoted an innovative, community-driven approach to poverty reduction.
[2] IFAD's Independent Office of Evaluation has conducted an evaluation of KLSP, published in 2021 – available here https://www.ifad.org/documents/38714182/42864434/tajikistan_1100001408_ppe.pdf/ec8d562b-9646-a384-00c7-bb3d2429c649?t=1623402705705. Annex 18 folder includes also the Project Completion Report of the LPDP, and the evaluation of LPDP II.
[3] LPDP is an IFAD-funded project whose rangeland improvement efforts in Tajikistan focused on improved grazing management for 130,000 ha of rangeland in order to increase sustainable livestock production, using rotational grazing as the principal tool.
[4] Compared to other IFAD portfolio, the CASP 2017-2024 has a higher emphasis on crop-related livelihoods, aiming to stimulate inclusive economic growth and poverty reduction in poor rural communities by improving access to productive infrastructure and services.
[5] Documented in the recently issued "Management of Livestock using rotational grazing. A Critical Intervention to Promote Food Security and Environmental Sustainability in Rural Tajikistan. Brien Norton, IFAD, 2022. Available at: https://www.ifad.org/documents/38714170/46450319/management-livestock-using-rotational-grazing.pdf/19aae904-771c-f261-e187-4c87d808e839?t=1666781751627.
[6] In 2013, during LPDP implementation, the country approved the Pasture Law that decentralized rangeland and livestock management. It authorized the creation of Pasture Users' Unions (PUUs) with an elected Board, giving them authority to manage common rangeland and to exercise fiscal responsibility for improvement of rangeland pastures and fodder crop production. LPDP supported the PUUs' purchase of agricultural equipment and the cost of local infrastructure development efforts.

sequestration of an estimated 6.82 m tons of CO_2 equivalent from improved pasture and forest management, afforestation and improved herd management (Annex 23: Carbon Accounting). Special activities will be undertaken for women and are outlined in detail in the Gender Action Plan (Annex 8) given their prominent role in agriculture especially livestock production, the high rates of outmigration of men from rural areas and the high proportion of women headed households and the lack of gender equity in the country.

3. **Project structure**. The project is designed to have three components which will be implemented at various tiers in the country; at the national level with the public sector institutions, at the community level to build community resilience with respect to common property resources and at the group and household level to strengthen and diversify livelihoods and access markets. The three components include:

Component 1:	***Strengthening public sector capacity for transformative climate-resilient management of natural resources***.
Component 2:	***Investments in community capacity for adaption and resilience to climate change***.
Component 3:	***Strengthening livelihoods for enhanced resilience through market based approaches***.

Component 1: Strengthening public sector capacity for transformative climate-resilient management of natural resources

Output 1.1: By year 7, capacities and enhanced coordination among relevant national institutions for climate-resilient natural resource management strengthened.

4. National capacities to plan, manage and monitor the natural resource base at central and at lower administrative tiers will be strengthened with a focus on forests and pastures. The capacity of the ***State Forestry Agency (SFA)*** will be strengthened. A forestry curriculum recently developed for Tajikistan with the assistance of GIZ[7] will be rolled out to the 14 project Leskhoz[8] and branches of the Adult Education Center of Tajikistan.[9] The ***Pasture Meliorative Trust (PMT)*** and a range of community-based institutions dealing with pasture management such as the ***Pasture User Unions (PUUs), Pasture User Associations (PUAs) and Pasture Committees (PCs)***. Operational capacities of both PMT headquarters and its decentralized office in Khatlon region will be enhanced.

5. Under this output, GCF proceeds will finance the improvement of the enabling environment for a climate sensitive pasture and rangeland management including improved monitoring mechanisms, using remote sensing data. GCF funds will also contribute improving the

[7] A forestry vocational education curriculum was developed by the GIZ project Adapting to climate change through sustainable forest management. The curriculum includes 9 training modules covering health and safety at work, forest establishment and silviculture, forest protection, forest wildlife protection and management, fire planning and control, harvesting of forest products, forest inventory and planning, Joint Forest Management.
[8] Out of the 21 target districts 12 have Leskhoz. And 2 of the districts have 2 Leskhoz each thus a total of 14 Leskhoz.
[9] In Russian: Центром Обучения Взрослых Таджикистана (ЦОВТ)

curricula at university to integrate climate change issues (also identified as a priority in the NDC), and will enable research institutes and the private sector to produce evidence on NRM and Climate Change for climate sensitive technical innovations (additional details of financiers of activities and sub-activities are provided in Table 2, Section B4).

6. ***Mapping and monitoring of natural resources*** at community level in exchange with competent national institutions is currently only partially undertaken and needs to be strengthened to allow proper central and local decision making on ecosystem services management. It is therefore important to introduce a system that combines remote and participatory natural resources monitoring and management. In addition, the project will pilot test an innovative approach to pasture monitoring. This will entail procuring an experienced international service provider (SP) that will install hives on a pilot area of 3.500 ha and undertake scientific analysis of the pollen collected by the bees, which can be utilized as bio-indicators. This analysis enables the recording of precise qualitative and quantitative data on the type and quantity of plant species present in the area, will lead to a clear identification of the impacts and effects of the measures applied by the initiative and allow a more diversified utilization of the pastures. Local beekeepers trained on the monitoring techniques by the SP will be responsible for the maintenance of the hives throughout the initiative. In addition to the pilot area, the Geobotany experts will assist with ground truthing of Earth Observation data. The project will build strong linkages between the Agency for Land Management, Geodesy and Cartography and with other agencies responsible for preventing further land degradation to establish a flow of information on land degradation, both in map and national summary form, updated annually. This will be distributed as a map service[10] in a national mapping portal. By introducing participatory monitoring techniques in combination with low-cost remote sensing, the project will put in place the basis of a system by which annual reporting can be institutionalized.

7. Given the importance of the livestock sector in the country, it is critical to enhance the technical capacities of national livestock institutions to ensure efficient provision of public animal health and production services to smallholder farmers through partnership between public and private institutions. The National Veterinary Authority (NVA) will be provided technical assistance and equipment to enhance its capacity for outreach to small holder farmers and reducing animal morbidity and mortality while the State Enterprise for Animal Breeding and Artificial Insemination (SEABAI) will be strengthened to provide AI services to smallholders for increasing animal productivity. The capacity of the country in measuring and tracking their GHG emissions and trends from livestock will also be enhanced through technical assistance in learning to use the Global Livestock Environmental Assessment Model – interactive (GLEAM-i) designed to calculate greenhouse gas emissions using IPCC Tier 2 methods. GLEAM-I can be used in the preparation of national inventories and in ex-ante project evaluation for the assessment of intervention scenarios in animal husbandry, feed and manure management.[11]

8. The project will build the capacity of ***research and academic institutions*** through integrating climate change in the curricula. With a view to build the future capacity of decision-makers and technical specialists on understanding and planning for climate risks. The Tajik Agrarian University, Tajik Academy of Agricultural Science and the Public Administration Academy will be assisted in developing education curricula and in the review of existing curricula of technical specialists for training of climate change specialists as well as for civil servants who are expected to be in key decision-making and planning positions in the Government. Both young

[10] A **Web Map Service** (**WMS**) is a standard protocol developed by the Open Geospatial Consortium in 1999 for serving georeferencedmap images over the Internet. These images are typically produced by a map server from data provided by a Geographic Information System" GIS database

[11] GLEAM-i is developed by FAO with the support of the World Bank and the International Finance Corporation.

men and women from the project area will be encouraged to enrol for a Master's degree in a climate related specialization through scholarships provided by CASP+ at one of the selected Universities. To encourage the generation of knowledge and the practical application of innovations, the project will encourage research institutions to produce evidence on effective approaches to NRM and better understanding of how the agriculture sector and within that the livestock and forestry sectors can help to increase adaptation and mitigate the impacts of climate change.[12] The latest findings on carbon sequestration, GHG emissions from agriculture, the evolving carbon credit markets and trading for smallholders will be among the topics included in the curriculum.

9. ***The private sector[13] will also be invited to present proposals for the production of technical innovations that can help in climate adaptation which can then be disseminated through the market and facilitate the adoption of climate adaptation and mitigation technologies and practices***. Joint collaboration between the public and private sectors will be promoted[14] by ensuring that the private sector is proved a supportive policy framework, sharing of resources, tax incentives, grants and access to concessional finance to complement the public research and to facilitate the dissemination of the technical innovations and approaches developed through the private sector. The technologies could include (i) testing of water saving technologies; (ii) carbon emission reduction and carbon sequestration technologies (biogas, alternative feed); (iii) innovative nature-based agricultural practices for fodder production integrated with other crops: intercropping, catch crops, agroforestry; (iv) climate resilient fodder crops (including fodder trees); (v) climate resilient livestock species and breeds and (vi) the introduction of new techniques to reduce enteric fermentation in livestock for reduction of methane, etc. The innovations will be disseminated within project supported activities at farm level, within rural alliances and as part of the livelihood diversification commercial activities (envisaged in Component 3). As part of these, CASP+ will also enhance linkages with formal financial sector institutions that can enhance access to finance. The potential to source funds from the IFAD Platform for Remittances, Investments and Migrants' Entrepreneurship in Central Asia – PRIME Central Asia will also be explored for CASP+ beneficiaries.

Output 1.2: By year 7, enabling environment for climate adaptive, inclusive and integrated management of pasture, forestry and livestock resources is enhanced.

10. CEP has the mandate for enhancing the enabling environment for addressing climate risks and is already engaged with the preparatory work for the National Adaptation Plan (NAP) readiness. To facilitate coordination among the main stakeholders, the project will organize regular workshops to facilitate interaction and enhance the mainstreaming of climate adaptive natural resource management practices. Support will be provided to existing thematic platforms such as the Pasture Working Group and the National River Basin Organization to better understand the changing trends and prepare to deal with growing risks. These activities are expected to enhance coordination among sector agencies and encourage synergies between the various investments and approaches.

[12] Experience from CASP 1 reports that the low number of proposals approved was related to the PMU not having promoted the grants outside the immediate project villages or to the private sector or NGOs, limited support provided in coaching the applicants on where to get business and technical assistance in order to develop a solid proposal, stringent criteria used for approval of proposals. The proposals which were developed were very innovative with considerable potential to build resilience and diversify livelihoods.

[13] Universities, research centres.

[14] E.g., in the form of consortia between private and public research institutions (reference to **Sub-activity 1.1.4.3. Research Grants – see Annex 21).**

11. Under this output, GCF proceeds will also finance stock taking of policy development and mainstreaming of gender sensitive climate adaptive agricultural practices and support strategic activities relevant to developing capacities towards implementing the Article 6 of the Paris Agreement, within the approved Green Economy strategy, for which synergies will be sought with the recently approved GCF Readiness to support country capacity to access and deploy climate finance[15]. This includes also assessment of the carbon market potential, addressed in the ongoing design of the GEF8-funded project[16] In addition, CASP+ will deploy trainings on carbon assessment tools (such as GLEAM-i, EXACT, B-INTACT, leading to enhanced capacities for national accounting, and will interact (through FAO as co-executing entity) with the FAO-implemented GCF Readiness project that includes support to MRV capacities. Additional details of financiers of activities and sub-activities are provided in Table 2, Section B4.

12. CASP+ has chosen high pay off areas for policy engagement from the climate perspective and will focus on specific policy aspects related to animal husbandry and animal health, pasture management, implications of promoting Green Growth on the existing system of incentives and regulation and any lessons derived from the experience of joint forestry management and monitoring of pastures. The current breeding strategy (2018-2022) requires review in particular to address issues related to conservation of indigenous genetic resources, as well as introduction of exotic breeds in the context of climate change[17], since genetic improvement through crossbreeding should not penalize hardiness, resilience to climate change and mobility of livestock, especially in smallholder systems. CASP+ will improve the regulatory frameworks for animal health including modalities of partnership between private and public veterinary services, through technical assistance by the World Organization for Animal Health (OIE). The project will also provide assistance to government agencies (CEP *in primis*) in the use of measuring and analysis tools such as the EX-Ante Carbon Balance Tool (EX-ACT) for the Agriculture, Forestry and Other Land Use (AFOLU) sector, the Biodiversity Integrated Assessment and Computational Tool (B-INTACT)[18] which increase accuracy of measuring the ecological value and biodiversity sensitivity of project sites and the Global Livestock Environmental Assessment Model-interactive (GLEAM-*i*)[19], which allows an assessment of the tier-2 emissions from the livestock sector.

13. While the 2019 version of the pasture law addresses most of the gaps of the previous version (2013) related to rights of PUUs, it does not address aspects related to control of livestock inventories. One of the possible entry point to address this issue from a policy and regulatory point of view, would be to include in the law, provisions to enable PUUs to establish systems (grazing permits, quotas) that ensure that carrying capacities are observed and that stock beyond a certain size is penalized. If these types of measures were framed in the Pasture Law and applied by all PUUs, the impact on animal inventories would be expected to be substantial (Annex 2). The project will therefore support the revision of the Pasture Law to ensure that such measures are incorporated in a revised version, as envisaged under the National Agriculture Investment Plan (NAIP) 2021-2030.[20].

[15] https://www.greenclimate.fund/document/strengthening-tajikistans-capacity-access-and-deploy-climate-finance
[16] While the national mechanisms for carbon markets are still under definition (including via large efforts from major IFIs such as ADB), the conditions for utilization of voluntary carbon markets are still under development. CASP+ will however support the development of the green economy concept under **Activity 1.2.3**: Launch the basis for a Green Economy, and under its co-financing from GEF8.
[17] This policy review work will build on lessons from the field, since the project also plans in parallel to support breed improvement through the introduction of exotic hardy breeds that will improve both milk and beef productivity, without affecting resilience to climate shocks and mobility.
[18] http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1305482/
[19] http://www.fao.org/gleam/en/
[20] Draft 2021, under finalization and endorsement by Ministry of Agriculture with support from FAO.

14. The Ministry for Economic Development and Trade (MEDT) and Ministry of Finance (MoF) are especially committed to ensuring that the pathways that they encourage are based on sustainable principles that encourage the growth of low-emissions pathways incorporating the principles of a "Green Economy. However, there is limited understanding of how to operationalize the concept of a Green Economy adapted and well suited to Tajikistan's socio-economic context and history, its unique geographic attributes and asset base. The MEDT and MoF have therefore asked for assistance in undertaking a comprehensive analyses of the country from this perspective and draft a concept note for Tajikistan that identifies a road map for implementing and propagating this approach for national development planning and green growth and providing assistance in management of public projects promoting paradigm shifts.

15. IFAD will use its investment in CASP+ as an opportunity to increase the awareness of the Government on how best to prepare for utilising the growing voluntary carbon markets for driving sustainable change for the smallholder. Carbon markets are a very important tool to reach global climate goals particularly in the short and medium term. They mobilize resources and reduce costs to give countries and companies the space to smooth to low-carbon transition and be able to achieve the goal of net zero emissions in the most effective way possible. IFAD will assess how it can capitalize on the carbon sequestration potential of CASP+ and secure the approval of the relevant Government authority such as the Nationally Designated Authority of the GCF for registering of CASP+ for carbon removal. Opportunities for building partnerships with RaboBank will be sought to co-finance communities and farmers by organizing them and providing them seedlings, plants, inputs and technical assistance for investments in carbon removal investments. IFAD will build on the lessons it learns from the PACT programme in Ethiopia for further refining its approach and for possible implementation in CASP+.

Component 2: Investments in community capacity for adaption and resilience to climate change

16. This component represents the most significant share of the financial outlay of the project and is designed to restore and enhance the productivity and climate resilience and mitigate environmental impact in 400 vulnerable village communities in the selected districts. The villages have been selected based on their vulnerability to climate change and their limited adaptive capacity. The planning stage will commence with a collaborative and a participatory district-wide diagnostic process. Led by the 21 district governments and facilitated by a competitively recruited NGO facilitator, the DCRD will be developed by both public sector agencies and private companies in consultation with communities and national experts. The CsCAPs for the selected villages will be guided by the District DCRD with respect to the recommended class of resilience building interventions and refine these into specific ecosystem improvement and agricultural resilience investments, composed of pasture management; afforestation and forest rehabilitation; climate resilient infrastructure; and agricultural equipment which can be used for greater efficiency in the use of land and water resources which promote resilience and reduce soil erosion. Given that the process is participatory the exact scope of the plans and the nature of investments will be identified during the CsCAP design. ESMPs and ESIAs will be developed at the level of the CsCAP to include risk mitigation measures where needed (Annex 6: SECAP or ESMF). The project officers will be trained on the elaboration, implementation and monitoring of ESMPs and ESIAs that will safeguard the foreseen investments. The broad parameters of the investments and the criteria for selection of each of the investment areas is outlined in Annex 2 and Annex 21 which details the activities and their implementation arrangements. For budgeting purposes,

indicative costs and quantities were identified based on previous IFAD experience under its on-going CASP project.

Output 2.1: By year 3, 400 Climate-sensitive Community Action Plans (CsCAP) based on 21 district level climate diagnostics are developed

17. A diagnostic analysis of community needs will be mapped using an advanced desktop geospatial analysis of climate risk and vulnerability.[21] A map-based profile of each district will be created to indicate the geographic areas where the effects of climate change pose the greatest threat to the safety and livelihood of inhabitants, built assets, agriculture and natural resources. The activities will be classed as 'Highly recommended', 'Recommended', 'Least recommended'. Given the importance of water control, conservation and topography in disaster risk reduction and climate change resilience, each district will be divided into planning units based on sub-catchments. This will allow a landscape management approach, linking activity in the upper parts of a given catchment to 'passive' beneficiaries in the lower parts of the same catchment and managing the interrelationships between various types of land use.

18. The district diagnostic will be regarded as a discrete 'information product' output of the project and an information campaign will explain the basis of the diagnostic to jamoats in the selected 21 districts; outline the climate-related changes that can be expected and the best strategies to cope with them. The entire population[22] of each district will benefit through improved planning with respect to climate resilient investments, whether in the frame of the current or future projects. The diagnostic approach will form the basis of outreach activities including short videos/animations (to be hosted on slmtj.net) and special education activities for schools. This material will also highlight the way in which climate risks will have a disproportionate impact on women and how the voices of women can be included in action planning to ensure success. Third level education opportunities linked to climate resilience promoted by the project will also be communicated as part of this content which can be used by the local level agencies as curriculum content and awareness purposes.

19. The climate diagnostic will be used to inform the process of village selection (criteria presented in Annex 21, Project Implementation Manual). The village ranking criteria will include village population, climate vulnerability, district poverty ranking and Earth Observation indicators (erosion potential, vegetation indices, etc) but will not cover all aspects such as the interest level and physical capacity in each village to undertake the required work as these will require validation at village level. A review of these aspects and a stock-take of institutional capacity will also be conducted to establish the presence, resources and capacity of pre-existing bodies such as in the Village Organisation structure at village, jamoat and district level; the presence of Pasture Users Unions, Pasture User Groups and the associated bodies of Pasture Commission and Pasture User Association; the presence of JFM contract holders/Forest User Groups; the human and physical resources of Leskhoz. For selection of both pasture and forestry investments additional criteria will be considered such as pasture area, location, state of pastures, forest area, forest degradation pressures, presence of Leskhoz for Joint Forest Management and openness of beneficiaries to the responsibility of a JFM contract, Leskhoz land availability, labour availability and the soil, topography and eco-physical characteristics of each District and the types of forestry investments that might be successful in each setting. Maintaining dedicated NGO facilitators for

21 The project will mobilize necessary expertise to develop the DCRDs, one for each of the 21 targeted districts and covering the entire territory of the districts.

22 It is conservatively estimated that 100,000 households in the 400 villages will receive some tangible benefits from the project.

each village throughout the project will capture such local nuances and see that they are handled sensitively (Annex 2 and Annex 21, PIM –TORs are in Annexes to chapter 4.2).

20. The project will prioritise CsCAPs that focus on reduction of GHG emissions from livestock. CASP+ will provide technical assistance through the technical staff at the local level for identifying interventions in villages that depend upon livestock to develop innovative strategies to increase livestock productivity and introduce sustainable change in livestock management practices. This will include effective feed production and management systems that can help improve animal digestibility and reduce enteric the emissions from fermentation. Strategies for improving breeds and management regimes that cull low productivity animals will be advised. These communities will also be introduced to institutions willing to provide access to funds for investments in improved breeds, technologies and systems that are more sustainable and enhance resilience and reduce GHG emissions.

21. Under this output, GCF will at first contribute to define the District Climate Resilience Diagnostic (DCRD) for 21 districts, which represent the basis for all community planning and for the ecosystem improvement investment envisaged in the component. GCF proceeds will also be the financing element to ensure strengthening communities capacities to identify climate stressors and prepare relevant climate sensitive community action plans (CsCAPs), providing the climate rationale for the climate-sensitive investments (additional details of financiers, activities and sub-activities are provided in Table 2, Section B4).

22. **Local institutions** such as VO's, PUUs will be established as needed in each village. Funding for member and management board training, ICT equipment and land registration certificates (for PUU's) will be provided. Initial appointment of boards (applying gender targets) where institutions are being newly established and training (of new and existing boards) will be required before moving to the planning stage. For forestry investments, Forest User Groups will be formed as a support network for individual householders who sign Joint Forest Management contracts. A similar concept will apply to the formation of other types of beneficiary groupings referred to as Common Interest Groups. These will be self-selecting groups of between 10 to 20 households per village[23] organised into two themes (i) climate resilient feed or fodder production; and (ii) processing and storage; which will be financed through a matching grant (see component 3).

23. A foundation of the CsCAP process will be communities' understanding of the climate risks; methods of maximising their environmental, social and economic resilience and the trade-offs they will make in their choice of CsCAP investments. Further elaboration on the digital data layers used in the CsCAP will include mapping of Pasture Management Plans, forest investments, Leskhoz pastures, transhumance routes, etc. The scope of the pasture management plans, the types of adaptive infrastructure and the equipment that can be provided is as follows: (i) pasture improvement/ restoration: pasture protection through fencing, reseeding, manure management and fertilization, plantation of forage shrubs and trees, access to water for livestock in underutilized areas including remote and summer pasture (subject to impact studies in order to ensure that the creation of water point will not result in pasture degradation), hay making areas, pasture access (for pasture underutilized because of their remoteness and limited accessibility, access tracks and bridges may be rehabilitated or constructed), and summer pasture infrastructures, if the risk of degradation is controlled by Pasture Management Plans (shepherd cabins, night fences and shelters for animals, cattle crushes for treatments); (ii) climate-resilient

[23] The CIG for window 1 will be on average consist of 10 households while those for window 2 grants are expected to have on average 20 households.

infrastructures strengthening / rehabilitation; and (iii) agricultural machinery with priority on fodder cultivation/harvesting and conservation equipment.

24. Since its first introduction in 2006, Joint forest management (JFM) is now well established as a successful natural resource co-management approach accepted formally in law through the 2011 Forest Code. Essentially a mechanism for long term leasing of forest land to local people for their sustainable management, the project will introduce the approach to 11 additional districts and further consolidate its acceptance. The presence of forest land and a functioning Leskhoz (Forest enterprises depending on the State Forest Agency) are prerequisites for JFM and this is not the case in all districts, thus the number of districts that will host forest investments is lower than the project total. Leskhoz staff, well informed by up-to-date vocational training delivered under Component 1 that deals comprehensively with sustainable, close-to-nature and climate resilient forest management; together with forest users trained in the planting and aftercare of trees, will jointly draw up 5-year management plans for the areas under JFM.[24]. Protected Areas (PA) in the country are managed using the concept of a buffer and core zone. JFM will be applied in the Dashti-Jum protected area buffer zone to support the PA objectives, support local communities and restore tree cover.

25. All Project infrastructures requiring land will be built on suitable community land in agreement with the *Jamoat* Administration and community. For implementation of construction works, the procedures for obtaining permissions for construction of infrastructure will be adopted. No trees, crops, structures or other land affixed assets currently being used for economic or residential purposes will be removed for the purpose of CsCAPs implementation.

26. In the development of the CsCAPs all relevant local communities and their institutions (Village organizations, Pasture Users Unions, Water Users Associations) as well as the decentralized institutions mandated to plan, monitor and invest in natural resources (Forest Enterprises, River Basins Councils, Local Administration, Environmental Protection offices, Emergency Committees) will be consulted. Technically qualified specialists will design each of the elements of the Pasture Management and Forest Management Plans as well for the design of the infrastructure schemes. The project will facilitate links with Banks, MFIs and micro-insurance providers and invite them to make presentations during the CSCAPs formulation for potential opportunities for investment by individual households to enhance access to financial services where appropriate in direct arrangements with the MFIs, micro-insurance providers and potential beneficiaries. The NGO facilitator will confirm that each CsCAP meets PMU budget and acceptance criteria and the PMU will forward them to the PMU Steering Group for approval. A detailed approval and submission process, including environmental and social screening, together with time limits and information requirements is specified in the PIM to ensure timely decisions are made. The process of annual review and compilation of Annual Operational Plans for the continued adaptation and implementation of the CsCAP will also be coordinated by the facilitator.

27. **Inclusion of Women and Youth.** A detailed gender action plan has been developed and integrated as a part of this proposal (Annex 8) with separate activities for women costed where appropriate. The project will ensure that at least 30% of the community facilitators are women. The facilitators will encourage the participation of women in the identification and planning of the investments and raise awareness regarding the importance of ensuring that women's priorities are reflected in the choices made. The component activities will promote women self-awareness and leadership trainings. It will foster women's participation on equal basis (50%) in developing

[24] GIZ. 2018.

the Climate-sensitive Community Action Plans, and will ensure a minimum representation (30%) in newly created PUU and other boards. The component will also support youth mobilisation and participation in key strategic planning processes (CsCAPs) including leadership trainings, climate change awareness and resilience building. Youth and excess local labour capacity (caused by reduced outward migration due to COVID-19) will be used in the creation of productive assets such as agroforestry. A specific target of 15% youth inclusion will be set for JFM contracts.

Output 2.2: By year 7, 400 Climate-sensitive Community Action Plans (CsCAP) implemented in 21 districts with benefits for 100,000 rural households.

28. The Project, through proper screening and social and environmental safeguards, will make sure that CsCAPs include a balanced mix of investment activities, and that they properly capture the need for specific interventions on climate change adaptation, mitigation and disaster risk reduction. The list of options given below are indicative as they will be identified by the beneficiary households based on climate diagnostic analysis and village level priorities. The series of activities and sub-activities under this component that will be designed will implement investments conceived and identified by the communities as indicated above.

29. Under this output, GCF will contribute financing the CsCAPs, specifically for the portion of community plans that pertains to the investment with the highest potential for carbon sequestration (namely forest restoration, Pasture and rangeland rehabilitation), while IFAD financing will complement on the most climate adaptive and resilience building investments (additional details of financiers of activities and sub-activities are provided in Table 2, Section B4).

30. The CsCAPs will include ***ecosystem resilience and adaptation investments***, spanning the following categories:

- Pasture Restoration investments identified through the forum of PUU (where VOs don't exist) or PUG (under Vos, where VOs exist). Pasture investments will aim at improving the overall productivity of pasture and limit their degradation, but also at reducing the fodder deficit in summer, amplified by Climate Change, by creating standing fodder stocks through fencing and rotation, and supporting herders in their transhumance practices. The pasture investment plans could include pasture restoration, rotation pasture protection through fencing, reseeding of pasture with palatable and drought resistant annual and perennial grasses (shrubs and trees come slater), fertilization, plantation of forage shrubs and trees. These will serve to support the restoration of the eco-systems and improve carbon sequestration. The project might include also cross-village pasture management investments that benefit multiple villages such as cooperation on transhumance routes, etc. The Pasture investments will represent minimum 20% of the total CsCAP Adaptation investment.

- Forestry investment, operated in collaboration with Leskhoz, and with the participation of forest users, will restore forest ecosystems and conduct afforestation to enhance the protection of areas vulnerable to climate hazards (disaster risk reduction), at the same time providing additional sources of income, food and fuelwood to rural communities. Forest investment will take three broad forms, firstly JFM on Leskhoz lands will create a contract between community beneficiaries and the relevant Leskhoz for the restoration of tree cover and management of a plot, initially for 20 years. The JFM areas already

have some forest cover (usually about 30% although this can be very low density tree cover) that can yield some outputs for the beneficiaries (such as fuelwood or non-wood forest products) while they wait for the newly established trees on the remaining 70% of the area to mature. The potential set of investments could include riparian forest for fuelwood and wood for construction, planting of orchards, pistachio forests, juniper forests, natural regeneration of juniper for fuelwood, Saxaul for fodder and erosion control and poplar planting / agroforestry – fuelwood/construction and fodder. Beneficiaries' in-kind contribution takes the form of labour for tree planting and on-going maintenance. On maturity, the timber and non-wood forest products yield from the plot is split between Leskhoz and beneficiaries on an agreed ratio. The associated modalities of JFM are now well defined, with a cohort of NGO's experienced in community mobilization and implementation for JFM. Drawing on the experience of previous implementations, detailed plans for these activities will be drawn up by the Leskhoz and forestry specialists, including the identification of land plots and allocation of them amongst beneficiaries.[25]

- The selection of JFM participants will involve filling a questionnaire and interview by the external NGO facilitator and will be capacity oriented, with larger plots only being assigned to participants who have the capacity to perform the required work. The NGO facilitator will acquire in-depth knowledge of the community and profile of households to prevent extended families dominating the selection process; to assist in conflict resolution and provide ongoing support in the execution of contracts with Leskhoz. Beneficiaries will also be given training in tree planting and aftercare. Secondly, the same JFM modality will be used as the vehicle to invest in buffer zones of Protected Areas. In all JFM areas small local forest nurseries will be established to meet the needs of the project. Thirdly, Direct Leskhoz Forestry investments will take place where forest is re-established on Leskhoz land where all materials and labour are paid for by the project. These sites are usually more remote from villages and emphasise natural regeneration techniques and the promotion of diversity, climate resilience and native species with the eventual formation of JFM leases on these lands also being considered. One forest nursery per Leskhoz will be upgraded to assist in meeting the project seedling requirements although overall, given the high level of natural regeneration and availability of willow cuttings and the dominance of indigenous shrubs and trees in climate resilient planting, seedling demands will be modest. In total, JFM will be applied over 80% of the project area for forest investments thus maximising the number of direct community beneficiaries. Investments in small nurseries and Leskhoz nursery rehabilitation will also be included where appropriate based on the specified criteria (Annex 2). The project will support JFM planning, it will not update the forest Cadastre or undertake a detailed forest management plan for each area. The responsibilities of all parties with respect to forest investments will be elaborated in a set of MOU's. Equipment and vehicles that are vital for planting, irrigation, site and soil preparation, fencing, supervision and transport of materials will also be provided to Leskhoz to operate forestry investments. Leskhoz manage significant pasture lands and an integrated approach will be adopted with PUU pastures and forest lands to ensure sustainable management across all land types, managing for example, the provision of fuelwood, the displacement of grazing from JFM lands and the location of transhumance routes.

- The planning of all forest and pasture investments on Leskhoz land will be coordinated with and form an integral part of each CsCAP. Building on the experience of previous

[25] Identification of land is part of the community planning (CsCAPs).

projects a novel element is the planned inclusion of an extra 20% of open area in each fenced JFM plot referred to as 'Open and Guarded'. For Monitoring & Evaluation purposes this was not included in the budget and will not be assessed, for example, for tree survival purposes but will form part of the area under each agreed JFM contract. The purpose here is to maximise the opportunity for efficient fencing and provide an extra buffer for future tree cover expansion. GHG accounting for the additional tree cover (both for forest and non-forest species), improved management and presence of existing tree cover in JFM is described in Annex 23 to the proposal where the summary position is that the gross area of forestry activities is 8,641 of which 1,794 hectares has pre-existing tree cover. An area of 1,311 hectares is in the category of 'Open and Guarded', leaving 5,536 of new tree cover which for the purposes of GHG accounting has been split into the creation of 3,924 hectares perennial crops (mostly fruit, berry and nut species) and 1,612 hectares afforestation. On the budgetary treatment, no reduction of 30% tree cover is applied (as in reality existing tree cover is often lower than 30%) and the total area of afforestation and reforestation is 7,330 hectares. When the 'Open and Guarded' area is accounted for, the total of 8,641 is once again reached.

- Climate Resilient infrastructure investments. The project will invest in various types of infrastructure, addressing water stresses and the need to adapt to increasing risks of climate-related hazards. ***Water related investments***. Extended periods of drought are expected to become more frequent, interrupted by fewer, but more intense torrential precipitations: fewer rainy days, but an increase in the number and intensity of storm events. In the parts of the project area that do not have access to a secure water supply for household needs, basic homestead production and animals, farmers need to travel hours for the collection of household water (this task usually falls on the women). To help families better adapt to the increased water stress, water infrastructure will be supported to alleviate the burden on women and increase water availability throughout the year that can also support diversification activities, horticulture, and to meet basic livelihood requirements in isolated areas. Soil and water conservation structures to prevent soil erosion, mudslides and floods will be considered where appropriate, according to the methodology described above to avoid maladaptation. These could include the plantation of bushes and trees, small hydrological works that slow down torrential water flows, where there is potential for aquifer recharge and enhance infiltration, reduce impacts of storms and reduce soil erosion.such as roads, protective works and erosion reduction, water points and irrigation schemes, etc. (this relates also to the multipurpose community equipment for improved agriculture productivity, provided based on a criteria and ensuring climate adaptation needs such as for fodder production and other key crops). ***Disaster prevention infrastructures***: Rural households depend on functioning road networks particularly in large parts of the project area that are relatively isolated and beyond the reach of the main road network. The project will ensure that infrastructure is adapted to the increased risks caused by more frequent torrential precipitation events.

  To avoid maladaptation, the project will support specific infrastructure to respond to specific climate change impacts in the area based on the district diagnostics and on the ESMPs. Furthermore, the project will make sure that the infrastructure is resilient to extreme climatic events to ensure sustainability in time. As an example, the project will climate proof existing and new roads with the objective to i) ensure the sustainability of the track allowing the continuity of the economic and social benefits and ii) protect the natural environment (including agricultural land) from gullying and bank failure due to heavy rain. It will do this by reinforcing specific sections of roads depending on the slope

angle and severity of the risk, stabilising the slopes of sections of road against water erosion through the collection and disposal of runoff water that would otherwise damage the surrounding natural environment. This will be achieved through design improvements such as wider and reinforced ford crossings; concrete-lined drainage channels; increased capacity of culverts; road surfacing with adapted material (e.g. tuff) and reinforcement of the surrounding earth road structure with gabions to prevent bank failure. The proposed structures will be defined in detailed technical studies conducted by specialist design firms based on which construction firms will implement. Wherever possible, these measures will be carried out with the use of adapted technology that allows energy saving and easy maintenance and replication (i.e. the thermo-isolation of shelters and stabling structures using straw which was successfully tested in previous projects).

- Community agriculture equipment for productivity improvement: CsCAPs will include the procurement of agricultural equipment such as tractors, bailers, etc., that will be shared, maintained and owned by the community. The management at community level will build on the successful practice initiated in previous IFAD projects, whereby the communities rent the equipment and tools to community members and ensure operation and maintenance, potentially financing other community projects. The focus will be on fodder harvesting and fodder conservation material, in order to help farmers to cope with feed shortages in summer and winter, that are exacerbated by climate change. Technical assistance for the use of these equipment will be provided under Component 3 which will primarily focus on fodder harvesting and conservation. The list of community equipment eligible under this window would include: Mowers, Hay rakes, Balers, Forager / Silage machine, Silage/haylage wrappers, Manure spreader (not only for fodder but contributes to improve soil fertility), Hay trailers (flatbed),. In addition, other category of mechanization equipment that could be considered are those that can be used both for hay/fodder and other crops such as: tractors and agricultural equipment (plough, harrows, cultivator, etc.), trailers, Planters, Fertilizer spreaders (used with good agricultural practices). Equipment that are only for non-fodder crops (e.g. combine harvester) will need to be justified in the CsCAPs according to specific climate vulnerability upfront and shall ensure they benefit smallholders.

31. **Community Forestry Investments:** The project will include in the village plans scope for the inclusion of agroforestry, afforestation and forestry investment on Leskhoz lands via Joint Forest Management, or directly by Leskhoz. In the case of lands under municipal control tree cover will be created as part of Village Development Plans. Leskhoz manage significant pasture lands and an integrated approach will be adopted with PUU pastures and forest lands to ensure sustainable management across all land types, managing for example, the displacement of grazing from JFM lands and the location of transhumance routes. Long term leases of grazing land to PUUs will also be considered. The potential set of investments could include riparian forest for fuelwood and wood for construction, planting of orchards, pistachio forests, Juniper forests, Natural regeneration of Juniper for fuelwood, Saxaul for fodder and erosion control and poplar planting / agroforestry – fuelwood/construction and fodder. Outside of JFM, forestry staff will also work to rehabilitate sites and forests in each Leskhoz, concentrating on natural regeneration techniques, and the promotion of diversity, climate resilience and native species in afforestation with the eventual formation of JFM plots on these lands also being considered. Equipment and vehicles that are vital for planting, irrigation, site and soil preparation, fencing, supervision and transport of materials will also be provided to Leskhoz to operate forestry investments. JFM beneficiaries will also be given training in tree planting and aftercare. Drawing on the experience of previous JFM implementation, detailed plans for these activities will be drawn up by the

Leskhoz and forestry specialists, including the allocation of lands under Joint Forest Management.[26] The selection of JFM participants will involve filling a questionnaire and interview by the external NGO facilitator and will be capacity oriented, with larger plots only being assigned to participants who have the capacity to perform the required work. The NGO facilitator will acquire in-depth knowledge of the community and profile of households to prevent extended families dominating the selection process. The project will also identify JFM investments in the buffer zones of protected areas where feasible with around 179 hectares of forests could be established in this way. Investments in small nurseries and Leskhoz nursery rehabilitation and direct afforestation works will also be included where appropriate based on the specified criteria (Annex 2).

32. **CsCAP Monitoring.** The monitoring and evaluation of the CsCAPs will be an intrinsic part of the approach under this component. The SEPMU will recruit a national monitoring consultant and will use 'Open Source' smartphone tools for project planning, monitoring and control to minimise supervision costs and improve the speed and frequency of supervision reports. During implementation of physical infrastructure investments, the Engineer recruited by the PMU and technical works Supervisor will be responsible for supervision and will support the local communities with monitoring their plans. A bridge will be established between the diagnostic maps and citizen reporting to provide a means of tracking the achievement of objectives of the plans and the outcomes achieved from CSCAPs implementation. All investments will be georeferenced. This will allow communities to better monitor all CsCAP investments using digital tools. Innovative methods will be employed to engage and incentivise stakeholders, including youth, to use smartphones for field reporting and ground truthing of remote sensing.

Component 3: Strengthening livelihoods for enhanced resilience through market-based approaches

33. This component has been designed to build the capacity of smallholders to identify and invest in climate resilient and diversified production systems that link to local and national value chains. Given that livestock production is central to the livelihoods of the rural households, enhancing the productivity of the livestock sector, diversifying livelihoods and building stronger links with markets is key for sustainable development. ***Current production systems are not adapted to climate change impacts, incur high production and post-harvest losses and are not integrated with market opportunities.*** The project will invest in developing linkages between smallholders and private sector actors, building smallholders capacities in climate resilient production practices and promoting farming as a business. The project will facilitate links with Banks, MFIs and micro-insurance providers for potential opportunities for investment in the productive alliances to enhance access to financial services where appropriate in direct arrangements between the financial service providers, private sector entrepreneurs and CIGs. This component will address among others the following Climate Change impacts:

34. Climate variability can stimulate emergence of diseases in livestock.[27] The activities concentrate on the provision of breeding and veterinary services, and the production of quality fodder. Of main importance is the enhancement of animal health, including preventive health care, to reduce the impact of climate induced diseases. Resilience of livestock also depends on

[27] http://www.fao.org/3/i3084e/i3084e05.pdf Climate change and animal health Juan Lubroth Animal Health Service, FAO, Rome

breeds: Most of the exotic cattle breed used for genetic improvement in Tajikistan (e.g. Friesian-Holstein type) are not adapted to environmental and climatic conditions and smallholder systems. The breeds used in artificial insemination campaigns will thus be chosen carefully among mountainous hardy breeds in order not to compromise mobility and climate resilience of animals;

35. Value Chains are currently not climate resilient. The project supports services to identify, analyze and invest in climate proof and profitable value chains. The focus will be on strengthening the capacity of smallholders to adapt their production systems to become more resilient to changing climate conditions and identify access to local and national markets. In order to support the elaboration of maladaptation safeguards, the CARD analysis included in Annex 2, Chapter 1: Climate Change impacts and Climate Vulnerability Analysis) will serve as a guidance on the value chains most vulnerable to Climate Change.

Output 3.1: By year 7, 105,600[28] smallholder livestock farmers receive Artificial Insemination (AI) services, animal health or training services to increase productivity of their livestock

36. Livestock productivity is currently weak and limited by the poor genetic potential of animals, the poor animal health status, and inadequate animal husbandry practices in particular the feeding and reproduction management. This output will support increasing the productivity of livestock production systems to encourage the reduction of herd and flock sizes. This is fully in line with the Government policy as illustrated in the recently developed national Agriculture Investment Plan which emphasizes the need to support intensification of production systems to provide incentives for herd reduction. The experience from previous IFAD projects has demonstrated the transformational nature of some of the proposed activities in Tajikistan such as the LPDP II. Focus on improved animal health and productivity led to increased weight of animals (30%), increased milk productivity (120%) and led to a reduction in the size of their herds by 29%. The main triggers that were used to prompt this transformation under LPDP II were pasture management (creation of PUUs and implementation of Pasture Management Plans), dissemination of improved genetics and provision of proximity animal health services. The combination of provision of breeding services through AI and provision of improved bulls, increased access to animal health services and capacity building of farmers on animal husbandry will result in significant improvement in livestock productivity, and thus in transformation of production systems into more intensive, less pasture dependent ones, which will encourage reduction of herd and flocks size. These incentives will be complemented by policy measures for control of animal inventories that will be supported under Component 1.

37. There are currently around 250 trained AI technicians in the Country, located in 107 AI centers. This number is not sufficient to provide AI services in the Country. CASP+ will partner with TAU and the State Enterprise for AI and Breeding to identify and train 50 AI technicians – this new activity will provide them with a complementary source of income. The 400 targeted villages will benefit from an AI campaign every year, with 20,000 AI conducted every year. In addition, an off-farm mating station per village will be installed in the 300 communities with the highest cattle population, to complement the AI campaigns for those farmers who prefer traditional methods and for cows that do not respond well to synchronization or have infertility issues. These stations will have one bull, renewed every two years due to the heavy weight of older bulls and to avoid in-breeding. Based on the successful LPDP II model, the bulls will be managed by the Village Organization and placed in private farms under a Public Private

[28] 105,600 unique AH beneficiaries (264 private vets x 400 Hhs), beneficiaries receive (i) AI services (20,000 once per year for 5 years, (ii) bull mating services (20,000 once per year for 5 years) and training via FFS (4000).

Partnership (PPP) contract where the host farmer uses the bull for its own cows and provides a costed mating service to the community. These fees will support the maintenance costs of the bull, and its renewal. With 300 active bulls, it is expected that around 20,000 animals will be served each year. This activity will be implemented by the State Enterprise for AI and Breeding, the national institution mandated for establishing such PPP mechanisms.

38. ***Tajik Veterinary Association*** Institutional support will be provided to the Tajik Veterinary Association which is responsible for the development of private veterinary services. To transform the TVA would require an effort to strengthen their image of themselves and strengthen their technical capacity. An MoU will be developed that outlines the responsibilities of the TVA (e.g. replication of training programs to other regions of Tajikistan, the development of district veterinary associations, and the preparation of the conditions for establishing a Veterinary Statutory Body in the country in accordance with the OIE's recommendations). Funds will be provided to the TVA to participate in international conferences and exchange visits. To support development of continuing veterinary education, CASP+ will provide funds for recruitment and operation of staff specializing in veterinary education. Assistance will also be provided to the TVA in the form of office and study room renovations, transportation, office equipment,

39. ***Training of private veterinarians: A key innovation that CASP+ is introducing under the project is the establishment of a cadre of private veterinarians.*** This will help to increase the productivity of animals, improve animal diets, reduce animal mortality and morbidity thereby changing the livestock holding pattern in a manner that focuses more on productivity and less on herd size thereby reducing animal numbers and emissions from livestock. CASP+ will select and train private veterinarians to meet beneficiary's needs for high-quality veterinary services. Each vet will cover 400 households, with a total of 105,600 households receiving animal health services during CASP+. CASP+ will select and train in annual refresher courses 264 private veterinarians involved in the project activities (two vets/jamoat) to upgrade their knowledge and skills. One of the two veterinarians in each jamoat is expected to be a woman or a youth. The topics of the training will be developed in accordance with the demands of the communities. These annual trainings will be implemented by the TVA. Selected veterinarians will be provided with motorcycles for mobility and veterinary equipment. It is expected that by the end of year 7 of the project an additional 132 veterinarians will join the private veterinarian service thereby bring the number to 396.[29]

40. Under this output, GCF will also finance the interventions most relevant to improve reduction of methane emissions including animal health, as well as innovative livestock farmers field schools and demonstrations of climate smart innovations (additional details of financiers of activities and sub-activities are provided in Table 2, Section B4).

41. ***Support adoption of climate resilient innovative technologies:*** The productivity and resilience to climate change of traditional livestock production systems is limited by the poor capacities of farmers on animal fed and nutrition, fodder cultivation and conservation, feeding patterns and practices, and the availability of and awareness on technical innovations that could improve animal diets and productivity, resilience to climate change, and reduce environmental impacts and reduce GHG emissions. Since independence the Tajik livestock sector has gone through a number of significant changes, which have had a profound effect. The most significant of these was a shift from state to private ownership of livestock. This change also led to mixed herds and flocks without adequate attention to animal husbandry and breeding and or performance testing or proper genetic selection. There has been a general lack of technical

[29] Motorbikes ownership will be transferred to private vets under IFAD financing. ownership and O&M under private vets.

expertise among the farming population who have had little access to advice or extension services, limited or no access to credit and have very poor farm machinery base, most of which dates back to the last years of the USSR which is in very poor condition.[30] While several projects have tried to intervene in the sector, these investments have been miniscule and have not been able to address the scale of the problem.

42. CASP+ will support the dissemination of nature-based technical innovations and their adoption by smallholder farmers through a combination of demonstrations, hands on training and Farmer Field Schools FFSs. In addition, CASP+ will facilitate the dissemination of technologies available through the private sector during these training sessions and FFS. Some of the potential climate resilient technologies to be disseminated will include the following: (i) new crops and varieties of drought and heat resistant fodder, that are already available in the country but not cultivated in the project area, or that could be identified from other countries with similar conditions[31] (ii) affordable and simple fodder conservation techniques, in order to reduce seasonality of production and dependence on pasture in winter (e.g. hay and silage making, hydroponic feed production), (iii) composting and manure management, (iv) husbandry of alternative livestock species (e.g. poultry) that are less dependent of pasture resources, or more resilient to climate change (yaks), (v) prevention and management of animal diseases and (vi) reproduction management (e.g. detection of animals in heat, calving and calf care, drying off management). Communities supported in marketing and processing of milk, milk hygiene and milk quality/safety management in output 3.2 will also receive this support.

43. ***Promotion of technical climate smart innovations through demonstrations and exchange visits:*** The climate resilient technologies and innovations mentioned above, that have been tested, adapted and validated by research institutions under Component 1 will be demonstrated in the field to enable farmers to see and evaluate their benefits and adoption. Twenty-one demo plots (1/District) will be established via a MoU with the State Enterprise for Capacity Development, which has extensive demonstration experience. In order to allow farmers access to these demonstrations, field days and exchange visits will be organized.

44. ***Development of FFS curricula and training of facilitators:*** For demonstration and evaluation of more knowledge intensive technologies, an FFS approach will be used. This will be implemented and co-financed by FAO which is experienced in rolling out FFS in Tajikistan and has been promoting this approach globally for several decades. This activity will build on existing capacities and past experiences in the establishment of FFS in Tajikistan, including in the Livestock sector. In Year 1 a Master Trainer ToT will be conducted to train three National Master Trainers (NMT). These NMT will be selected from amongst those already trained and present in the Country; in this case their training will mostly be a refresher. Development of the FFS curriculum will be done by the NMTs and technical staff from the Ministry of Agriculture. FAO will conduct three missions in the Country during the first year of implementation. Then 40 facilitators (50 percent men, 50 percent women, 30 percent youth) will be selected and trained to run 80 FFSs through five training sessions facilitated by the NMT.

45. ***Roll out of FFS:*** A total of 80 dairy FFS will be established in villages where opportunities for establishing value chain projects (Milk Collecting Centers) will been identified. Since each of the 8 projected milk collecting center will serve 10 villages in average, the 80 FFS will allow reaching out all producers in the collection basins of the MCCs, to address production and milk quality issues. Each FFS will be active during 4 to 5 years and will train 25 participants each (2000

[30] Evaluation of FAO Activties in Tajikistan. October 2009. FAO (http://www.fao.org/3/bq912e/bq912e.pdf).
[31] E.g. saxaul, kochia prostrata, agropyron for dry land areas of Khatlon region

beneficiaries in total); at least 50% of the FSS participants will be women since they are often the ones responsible for taking care of the dairy animals (stall feeding, cleaning, milking, milk marketing). At least 25% of participants should be youth. The thematic focus of FFS will prioritize fodder management and conservation, as well as milk hygiene and processing (needed for market access) as well as improved management along the livestock value chain that help reduce GHG emissions. This activity will be implemented by the State Enterprise for Capacity Development (SECD) which has already been involved in FFS together with FAO. FAO will provide quality assurance and regular (annual mission) technical and methodological backstopping. CASP+ will cover the salaries and transport costs of the NMT to supervise the schools (around 30 schools per NMT, 1 visit per month) and the fees of the 40 facilitators. The facilitators will be equipped with a bicycle. To enable each FFS to test selected climate sensitive technologies, startup capital (USD 100) will be allocated to each FFS to purchase the necessary equipment and inputs.

Output 3.2.: By year 4, nine Productive Alliances[32] between livestock producers groups and private aggregators established and operational.

46. This output will facilitate business partnerships (Productive Alliances) between groups of smallholder farmers and private sector actors (e.g. aggregators, processors) on dairy and beef value chains. The main rationale for this activity is the need to create incentives for more efficient livestock production to reduce GHG emissions. Productive alliances and FFS will target the same communities. The combination of these two activities will allow the smallholder farmers to increase their productivity and production on the one hand, and to market this incremental production through the business partner engaged in the PA. A special aspect that will be monitored is the reduction of GHG emissions through improved herd management and feeding practices. This will generate additional incomes, thus providing additional incentives for transformation of production systems and reduction of herd size. These Productive Alliances will be formalized, include an implementation plan, commitments on prices, delivery and quality requirements. Benefits for the producers will include secure and predictable market and prices, and could also include access to services (e.g. production inputs, TA, access to finance) provided by the private sector companies to improve the productivity and reduce the seasonality of production. Supported business arrangements will contribute to strengthen household and business climate resilience, and reduce environmental degradation.

47. Under this output, GCF will contribute to developing innovative livelihoods opportunities related to private sector and market linkages (additional details of financiers of activities and sub-activities are provided in Table 2, Section B4).

48. ***Identification of market and business opportunities:*** CASP+ will hire a service provider with good knowledge of the private sector actors and business operators to support the identification of business opportunities and arrangements/linkages that could be initiated, facilitated and financially supported. The identification process will involve (i) the selection and prioritization of value chains with market opportunities, (ii) the identification of existing or potential groups[33] who could link to the market but face difficulties in accessing the market, (iii) the identification of aggregators and processors interested in increasing their supply through sourcing of commodities from smallholder farmers, (iv) the specifications of commodities required by the market/aggregators (quality, quantity, calendar) and (v) the type (e.g. Productive Alliances) and

[32] 8 for dairy, 1 for beef

[33] Since there are no existing dairy producers' groups so far in the project area, the PUUs will be the entry point for constituting producers' groups to be engaged in productive alliances. The producers' groups will operate under the umbrella of PUUs.

modalities of the business arrangements that could be established, including the type of services and inputs that could be provided by the aggregators to address the constraints faced by producers. During design possible value chain and business models that build climate resilience and increase benefits to the priority target groups (poor rural households, women, youth) have been pre-selected, these are (i) milk collection centers (including mobile ones) under Productive Alliance arrangement and (ii) production of quality yearlings (young male cattle) sold at 7-8 months of age to be fattened in feed lots. This will include the identification and facilitation of access to existing financing mechanisms that can enhance access to climate finance.[34]

49. ***Provision of financing and technical support to the business partnerships for selected livestock commodities:*** A service provider will organize and facilitate consultation meetings for pre-selected value chains gathering potential Productive Alliance partners (producers groups and business operators). The feasibility study and business plan development will be undertaken by a specialized service provider recruited through a Call for Proposals. It is expected that 14 feasibility studies and business plans will be developed through this sub-activity, with 9 of them being funded (the choice of the 9 financed projects will be done by PMU based on pre-defined criteria described in Annex 2). The feasibility studies and business plans of proposed productive alliances will be submitted to the PMU for approval. Once approved, the PMU will provide co-financing through direct procurement and provision of needed equipment and goods. Matching Grants will be provided by the project of up to. a maximum of USD 50,000 per Business Plan with an average of around USD 30,000. The Business Plans will be financed as follows: (i) 70% from CASP+, for collective infrastructure such as the construction of the Milk Collecting Centers and its equipment (cooler) (ii) 10% beneficiary group contribution (in cash or in kind, e.g. land for construction of the infrastructure, local material, local labour) and (iii) 20% cash or in-kind from the private sector partner (e.g. provision of milk cans or milk analysis equipment for the MCC, credit to farmers, etc.). The grant will not finance investments for the benefit of the private partner but only collective investments for the farmers' group. What is financed by the project and the farmers will be the property of the farmers; the processor will own only what he provides. However, the processor may manage some of the farmers' assets (e.g. the MCC and its cooler) on their behalf, in the scope of the PA agreement. This is a very common arrangement in the dairy sector and there are some multiple examples where it works well. This system has been supported under several IFAD funded projects in Kyrgyzstan,[35] Georgia,[36] and East Africa (Rwanda,[37] and Kenya[38]).

50. ***Technical and business assistance to business arrangements including Productive Alliances"*** In most cases, the implementation of the PA will require strengthening of business and technical capacities of producers. The first area on which the producers involved in the PA will require technical support will be production. For the 8 milk PA, the FFS established in the same communities will address in priority issues related to feeding, in particular fodder production and conservation in order to reduce the seasonality of production, and milk quality, through promotion of better hygiene practices at farm and milk parlor level. When the aggregator is in the position to provide this technical assistance, for instance milk processors for provision on training on milk hygiene, this option that provides more sustainability will be preferred. In this case, the cost of the training provided by the aggregator could be co-financed (at 50%) by CASP+. In

[34] Currently Financial institutions in Tajikistan such as Eskhata Bank, Arvand bank, Humo and Imon International are providing credit lines sensitive to GHG reduction activities. Reference to lines under https://ebrdgeff.com/tajikistan-agri/
[35] Livestock and Market Development Project (LMDP) and Access to Market Project (ATMP).
[36] Dairy Modernisation and Market Access Project (DIMMA).
[37] Rwanda Dairy Development Project (RDDP)
[38] Smallholder Dairy Commercialization Programme (SDCP).

addition to the training, regular business and technical coaching will be provided to the group, through the District Agro-Department, which will be contracted specifically for this purpose.

Output 3.3: By year 7, 12,400 smallholders have strengthened climate resilient production practices and private sector market linkages.

51. **Management of the CIGs matching grant program:** A Matching Grant Facility (MGF) will be established and administered by the PMU through an MGF Manager who will manage the Window 1 (livelihood diversification for vulnerable households) and Window 2 (commercialisation and agribusiness development). This concessional funding is justified based on the sustainable increase that it can help drive a sustainable increase in climate resilient production practices. It is expected that a total of 10,200 households will access 1020 Window 1 grants and 2,200 households will access 110 Window 2 grants. Window 1 will be for grants of up to 8,000 USD. These grants could be for, e.g. small-scale processing equipment, local storage infrastructure, community-based seed production, inputs and service provision, drip irrigation, greenhouses, nurseries, shelterbelt establishment, riverbank stability, access to renewable energy and introduction of practices and technologies that reduce GHGs especially in livestock production and other farming practices. Farmers accessing Window 1 will match the grant with a 10 percent cash contribution. Window 2 will be for CIG grants that have an average value of USD 30 000. These grants will be for larger scale investments, e.g., processing equipment, storage infrastructure, greenhouses, solar drying facility, etc. Window 2 beneficiaries will match the grant with a 20 percent cash contribution. An MGF Implementation manual will detail all activities from launch of the call, to review, award and implementation support. The PMU will publish an announcement of the matching grant program and organize a communication campaign for dissemination. The matching grants will be operationalized through a service provider with experience in the agriculture sector, on climate resilient technologies, agribusiness environment and on developing farmer-market linkages (detailed ToRs are provided in annex to chapter 4.3 of Annex 21-PIM, as well as in chapter 6 of Annex 2-Feasibility Study).[39]

52. This output will facilitate two types of common interest groups (CIGs) to access support services to identify, analyze and adopt climate resilient production practices. The first group of 1020 CIGS will focus on strengthening their capacity (See above) to adapt their production systems to become more resilient to changing climate conditions and in some cases identify opportunities to link to local markets. This support will increase access for CIGs to productive assets and services to increase agricultural productivity and diversification. A second set of market-linked CIGS (identified in sub-activity 3.3.1.2) will receive capacity building in farming as a business, entrepreneurial skills and business plan development, so they can link to profitable value chains (e.g. small-scale poultry, horticulture, processing, etc.).

53. **Strengthening of CIGs capacity:** The PMU will recruit 12 District Officers to assist in the implementation of this activity. A service provider will be hired to build the capacity of the District Officers in the initial stages of the project and orient them to form and assist the CIGs in the first 100 villages. The PMU will also use the extension officers of the MOA to assist in this task and they will also be trained along with the District Officers. The MoA extension team in the District level generally consist of three officers, namely an agronomist, a veterinarian and a technician in animal health disease and pest management or plant pathology. Thus, a team of 76 officers will provide technical backstopping as required. The main output under this component will be the identification and mobilization of 1020 CIGs from the 400 communities identified in Activity 2.1.5. The service provider, the District Officers and the MoA staff and the Grants Managers will work

[39] Details on procurement are specified in the Procurement Manual section of the PIM (Annex 21, chapter 7).

alongside the service provider in implementing this activity. Once completed the CIG will be able to apply for funding under the MGF Window 1 below. A second service provider with experience in linking farmers to markets will be contracted to conduct a private sector scoping exercise to identity potential companies interested in linking to individuals and/or existing or new CIGs. During design, a range of potential enterprises were met and identified as potential private sector partners (e.g. egg/broiler production, horticulture, fruit production and fruit drying) which will be further evaluated. The scoping exercise will be useful also to link the enterprises with existing climate-sensitive financial products[40].

54. A second group of 110 CIGs will be supported to engage in prioritized value chains through targeted capacity building in farming as a business, business planning, financial literacy, matching grant proposal writing, climate smart agriculture, productivity improvement, value addition and developing market linkages. Arrangements linking CIGs to private sector business that are profitable, low risk, climate adapted will be funded through the MGP Window 2. The 12 District Officers and MoA extension staff at district level will also provide support to CIG grant beneficiaries to ensure success in implementation. Initial support will be provided so grantees are prepared for start-up and effective utilization of the funds. Where needed follow-up trainings on climate resilient technologies, equipment, productive assets and technical assistance will be provided by the service provider hired for the purpose.

55. Under this output, GCF financing will be instrumental in mobilizing resources and expertise to support climate-sensitive economic activities that reinforce livelihoods and diversify to more sustainable livelihood options. It will also facilitate the establishment of market linkages with private sectors and facilitate linkages with existing green credit lines (additional details of financiers of activities and sub-activities are provided in Table 2, Section B4).

Project Management Component

56. Under IFAD supervision, the 7-year CASP+ will be co-executed by the Ministry of Agriculture through its State Enterprise **"Project Management Unit" Livestock and Pasture Development** (SEPMU), the **Committee on Environmental Protection** (CEP), also NDA (through its project implementation group), and the **Food and Agriculture Organization of the UN** (FAO). The project management component will: (a) ensure coordination of project's interventions is managed effectively and in timely manner; (b) provide technical assistance and specialist input in implementing project activities; (c) undertake the financial management and procurement for project activities; (d) prepare the annual work plans, budgets and procurement plan for approval of all financing institutions; (e) support monitoring, submission of reports to GCF and IFAD and Government, supervision and impact assessment.

[40] Currently Financial institutions in Tajikistan such as Eskhata Bank, Arvand bank, Humo and Imon International are providing credit lines sensitive to GHG reduction activities. Reference to lines under https://ebrdgeff.com/tajikistan-agri/.