Annex 4 of the Feasibility Study

Identification of beneficiaries

A multi-criteria analysis was applied to carry out a process of identification and prioritization of the Macroregion, the municipalities and the number of small-holder farmers to be considered in the implementation of the RECEM-Valles Project. The target areas and number of beneficiaries of the project were selected through a step-wise process, as follows:

1) A multi-criteria analysis was carried out with a Geographic Information System (GIS), of the Macro-regions of Bolivia, which considered the following criteria: i) high vulnerability to climate change (hailstorms, frosts and droughts), ii) Contribution to the basic family basket of the main cities with food products, iii) important water recharge areas, measured by SENAMHI and iv) priority areas for conversation on biodiversity. This analysis led to the identification of the Valles Macro-region as the priority area for food production at the national level, which is highly vulnerable to the effects of climate change, mainly to the variability of precipitation and temperature. The Valles Macro-region was selected based on its high vulnerability to climate change and other criteria, such as poverty (approximately 63% of the population is poor). The Macroregion covers 111 municipalities and 13,107,900 ha. Under this over-arching criterion, analyses will be made with base maps of the project's area of influence, superimposing the maps of family agricultural and livestock production units, vulnerability to hail, drought, and other extreme phenomena related to climate, versus the INE poverty map in its different categories. This includes identifying indigenous peoples and ensuring project resources are targeted to support their increased resilience.

2) Following this analysis, 65 target municipalities have been selected with the highest vulnerability, covering 8,338,000 ha and a total population of 2,328,741 people. These are smallholder farmers (defined as small-scale family farmers relying on family labour, and therefore with limited access to the human, physical and financial resources required for adaptation), and who are at greatest risk of being pushed into conditions of extreme food insecurity due to climate change (all of those in conditions of poverty or extreme poverty fall into this group). The project will target the same small-holder farmers with approximately 0.5 ha of land, who produce mostly maize, vegetables, potatoes, wheat, etc.

3) To further identify the direct beneficiaries, the following criteria have been applied:
    - Residence within the project Municipalities.
    - High dependence on agriculture and/or natural resources.
    - Small-scale family farmers.
    - Those whose primary source of income depends on agriculture.
    - Vulnerability due to exposure to environmental and climate change risk.
    - Household with 5 or more members.
    - Agrarian property titled by INRA.
    - Manifest willingness to implement project management practices.

The prioritization of direct beneficiaries has followed a process of thorough stakeholder engagements with the various stakeholders at the local, municipal and national level.

4) The result of the stakeholder engagement was the identification of the direct beneficiaries: 81,551 smallholder farmers as direct beneficiaries, who in turn are heads of the Agricultural Production Unit (UPA). Female headed households will be prioritized.

Agricultural Production Unit (UPA): This is the unit of organization of agricultural production, comprising the land, parcel or set of land or parcels, used totally or partially for agricultural activities, conducted as an economic unit by a producer, regardless of size, tenure regime or legal status. The producer is the natural or legal person who has the economic and technical initiative and management responsibility, i.e. who makes the main decisions on the use of resources and exercises control over the administration of the UPA's operations. In summary, the UPA presents a family household, which on average, consists of 4 persons[1].

5) For the final selection of beneficiaries at implementation stage, a selection guide based on the RECEM-Valles criteria will be elaborated by FAO in close consultation with the stakeholders at different levels. In this way, the selection process will have the support of both: institutions and community representatives, and will be based on the governance mechanisms promoted by the project. The project considers a logic approach linking farmers with financial services, through their own capacities. According to this approach, most vulnerable people, chronic poor and extremely poor, should be subjects of safety net programs more than micro credits or microfinance. The process promoted by RECEM VALLES is to de-risk the transitory vulnerable farmer's activities and financial transactions, through many of the activities of the project aligned to make eligible the small farmers and the most vulnerable as a client for the proposed financial products.

Further criteria have been developed to determine the beneficiaries at the level of the outputs as follows:

Output 1:

Output 1.1:

1) It has been estimated that the provision of inputs such as thermal blankets, anti-hail nets, solar tents and the provision of hydrogel will be destined, respectively, to small-farmers whose crops are affected by the extreme phenomena of hailstorms, frost and droughts, which undoubtedly generates greater poverty, food insecurity and migration to urban centers in the country or abroad, in search of better living conditions.

2) In the case of hydrogels, the selected beneficiaries are small-farmers located near water sources, where the vegetation cover is degraded or affected, thus requiring the restoration of the associated ecosystem to improve or increase the hydrological regulation flows and organic matter in soils, among other environmental functions of great importance for the Macro-region of the Valleys.

Output 1.2:

3) The support of market access under this output will target the same farmers who have been supported under output 1.1. The farmers will not only receive the technical inputs and assistance related to improving the resilience of agricultural production, but also the support needed to market these products.

[1] Noticias Fides, Año 2022, 14 de junio. https://www.noticiasfides.com/economia/tamano-medio-del-hogar-en-bolivia-es-de-cuatro-personas-143070

Under component 2, the beneficiaries will be different then from component 1.

Selection criteria for implementation of Activity 1.1 and 1.2

ACTIVITY 1.1.1	
Indicator	**Criteria**
1,200 family and communal solar tents have been implemented	i) Farmers living in areas with very high and high risk of frost (including extreme events) ii) Family farmers producing vegetables iii) Farmers who can provide an in-kind contribution (like labor).
600 anti-hail nets have been installed	i) Farmers living in areas with very high and high risk of hail (including extreme events) ii) Family farmers producing vegetables and others. iii) Farmers who can provide an in-kind contribution (like labor).
1,000 frost blankets implemented	i) Farmers living in areas with very high and high risk of frost (including extreme events) ii) Farmers producing grapes and fruit iii) Farmers who can provide an in-kind contribution (like labor).
5,200 small-scale producers (30% women and 10% youth) have incorporated hydrogel	i) Farmers living in areas with very high and high risk of drought (including extreme events) ii) Family farmers with agroforestry systems iii) Farmers who can provide an in-kind contribution (like labor).
ACTIVITY 1.1.2	
At least 23,551 producers (40% women) that have been trained in agroecological production, conservation agriculture and/or agroforestry. As a result of this activity, farmers can individually provide maintenance of the equipment.	As above: Activity 1.1.2 complements Activity 1.1.1
ACTIVITY 1.2.1	
Indicator	**Criteria**
At least 120 producer associations (at least 40 led by women) have received training and technical assistance for the organic certification process	i) Associations of small producers with at least 4 years of active existence at the start of the project with willingness and/or experience in organic certification processes for their products and whose members will benefit from the activities in this output 1.1
600 anti-hail nets have been installed	i) Farmers living in areas with very high and high risk of hail (including extreme events) ii) Family farmers producing vegetables and others. iii) Farmers who can individually show means of maintenance of the equipment and can provide an in-kind contribution (like labor).
ACTIVITY 1.2.2	
Four (4) collection and marketing centers built for agroecological products	i) Areas with high potential for the consolidation and/or development of local markets for family farmers. ii) Areas with high demand for products for basic food supply

	iii) Areas where local governments and/or producer associations show plans for technical and/or financial counterpart (PTDI, private investment, etc.)
ACTIVITY 1.2.3	
20 associations of honey producers, both men and women, at the local level and 3 regional associations	i) Associations of producers located in areas with very high and high vulnerability to extreme phenomena (frosts, hailstorms, droughts). ii) Associations of producers located in areas with a high incidence of degradation and/or desertification in adjacent areas, who can provide an in-kind contribution (like labor).

Output 2:

Output 2.1 and 2.2:

4) Regarding the provision of materials and technical assistance to revitalize the irrigation systems of the Macro-region, these actions will be carried out with small-farmers who have an organizational level and tradition in irrigated agricultural production, so the beneficiaries will be members of communities or irrigation associations that have been affected by drought and extreme phenomena of increased temperatures in their agricultural production systems.

Selection criteria for implementation of Activity 2.1 and 2.2

ACTIVITY 2.1.1	
Indicator	
1,000 community reservoirs in municipalities with a high and very high risk of drought.	For the selection of the community reservoirs: i) Communities in areas with very high risk of drought ii) Communities with existing Agricultural Productive Units For the selection of the family water tanks: iii) Family farmers with existing irrigation systems and living in areas with water deficit as demonstrated in the results of the hydrological balance, who can provide an in-kind contribution (like labor).
5,000 family water tanks have been implemented in municipalities with a high and very high risk of drought.	
ACTIVITY 2.1.2	
1 Inventory of irrigation systems prepared, published and distributed to sub-national authorities to contribute to PSDIs, PTDIs and other key actors as SENARI	The inventory of irrigation systems will be carried out throughout the whole project's area of influence
ACTIVITY 2.1.3	
● 4,448 farm hectares have been revitalized and/or equipped with technified and resilient irrigation systems.	i) Family farmers living in areas with water deficit as demonstrated in the results of the hydrological balance ii) Family farmers producing products for basic food supply, iii) Farmers who can provide an in-kind contribution (like labor).

	iv) Areas with existing or near future irrigation investments from the government, to improve irrigation systems and food production.
ACTIVITY 2.2.1	
Indicator	**Criteria**
At least 5 farmer's field schools have trained 448 (30% women and 10% youth) community promoters for the implementation of climate-proofed irrigation systems.	The geographical location of the Farmer Field schools will be focused on the following areas: i) Areas with very high and high risk of drought; ii) Areas of family farmers with water deficit as demonstrated in the results of the hydrological balance iii) Areas of family farmers producing products for basic food supply
Through at least 3 strategic alliances between the technical education entities and universities in the project's intervention area, 120 technicians have been trained	These alliances will be built with entities who work in the Project area
120 technicians from the National school of irrigation and the universities have updated their knowledge on climate – proofed irrigation systems.	The technicians will be selected based on working in the project area, especially on those areas where interventions will take place in component 1 and 2
ACTIVITY 2.2.2	
5000 agricultural production units have been trained	This activity will be focused in areas outside of the intervention areas, as it relates to replicate technologies to other areas outside of the GCF funded interventions: i) Areas with very high and high risk of drought; ii) Areas of family farmers producing products for basic food supply
ACTIVITY 2.2.3	
7 O&M plans designed for the irrigation systems within the framework of the inter-institutional platforms of the water basins 1 standard legal agreement prepared and validated	i) Areas with existing or future irrigation investments from the government, to improve irrigation systems and food production.
ACTIVITY 2.2.4	
7 O&M plan signed in each micro region	i) Areas with existing or future irrigation investments from the government, to improve irrigation systems and food production.

Output 3:

The total beneficiaries of component 2, 3 and 4 overlap, as these components are complementary. Component 2 seeks to secure water resources and component 3 aims to strengthen capacities for the management of the water resources. While component 4 looks at

strengthening capacities to implement for PTDIs (Comprehensive Development Territorial Plan) and access to financial mechanisms.

Output 3.1 and 3.2:

6) Technical assistance and the implementation of restored and conserved ecosystem practices to avoid land degradation and restore degraded lands will be provided in a differentiated manner to beneficiaries located in dry production areas compared with irrigated production areas. This will avoid the duplication of efforts.

Selection criteria for implementation of Activity 3.1 and 3.2

ACTIVITY 3.1.1	
Indicator	**Criteria**
An updated inventory of water sources for the municipalities prioritized by the project in the Valles Macro-region. 14 water use plans implemented (local water development plans and local micro-basin management plans)	The updated inventory will be carried out for all the 65 selected municipalities. Criteria for the implementation of water use plans: i) Areas with Basin Master Plans in design and/or existing plans that have been approved for implementation ii) Areas with very high and high risk of drought and where project interventions have been implemented in component 2 and 3;
ACTIVITY 3.1.2	
17,510 ha under agroecological and/or agroforestry management in public areas and family farmers	i) Areas that are located in water recharge areas and/or existence of water sources with priority for those with a local plan such as water use plans and PTDIs Farmers, who can provide an in-kind contribution (like labor).ii) Presence of family farmers producing products for basic food supply iii) Areas with high risk of land degradation
Monitoring report for the restoration activities and conservation water sources and valley ecosystems.	
ACTIVITY 3.2.1	
Indicator	**Criteria**
1 Online tool for monitoring and dissemination of information.	This activity will contribute to the whole project area.

Output 4:

Component 4 beneficiaries overlap partially with those under component 1, 2 and 3. Component 4 aims to complement the improved technological inputs provided under component 1, 2 and 3 with the strengthening of governance frameworks for participatory climate adaptation, early warning systems and long-term monitoring.

Output 4.1

7) This output aims to support the strengthening of capacities at national and sub-national government entities and the direct beneficiaries will be benefitting through the implementation of the PTDIs.

Output 4.2

8) Under activity 4.2.2, the direct beneficiaries will be a group of farmers to have improved access to financial mechanisms for improved agricultural productivity. This group will be part of the beneficiaries who have also received inputs (technologies) under component 1 and 2 (activity 4.2.2. will complement components 1 and 2).

Output 4.3

9) This output will provide strengthening of capacities at national and sub-national level to government entities, while activity 4.3.1. will also include smallholder farmers, CSOs and academia. Activity 4.2.1 and activity 4.3.2 will include the same beneficiaries who have been supported under component 1, 2 and 3 as this activity will complement the technical assistance the beneficiaries have received in terms of making improved decisions on their farms related to climate change risks.
10) Activity 4.3.3. only refers to officials of municipalities to receive training, solely with co-financing by FAM.
11) Activity 4.3.4. refers to the total number of project beneficiaries who will benefit from this activity as part of the impact evaluation and the development of knowledge management products.

Selection criteria for implementation of Activity 4.1, 4.2 and 4.3

ACTIVITY 4.1.1	
Indicator	**Criteria**
At least 10 institutions at the national level and the 65 municipalities included in the project have been trained in the design and implementation of policies related to climate change adaptation.	All 65 prioritized municipalities will be trained. ii) National entities will be selected based on their existing work related to the integral management of water and the production of food, as well as mitigation and adaptation to climate change in those areas where project interventions have taken place in components 1, 2 and 3.
24 PTDI updated with local actors that include climate-sensitive planning and decision-making processes related to sustainable water use	The PTDIs will be updated and implemented at the level of the municipalities: i) Municipalities with very high and high risk of extreme weather events. ii) Municipal governments that show willingness to include a specific budget in their annual budget plans for aspects of mitigation and adaptation to climate change
12 PTDIs implemented	
ACTIVITY 4.2.1	
Indicator	**Criteria**
At least 10% of the loan portfolio for production and irrigation has been reactivated and/or increased (Baseline: 0%; Timeline Q4 of year 4). One risk-indexed micro insurance designed and implemented (Baseline: 0 adequate risk-indexed micro insurances; Timeline: Q1 of year 3). One funding mechanism designed and implemented for the water funds (Baseline: 0	This activity will benefit the whole project area

funding mechanism for water funds; Timeline: Q3 of year 3). At least 1 green financial mechanism for production and irrigation loans targeting women and young producers has been designed and is being implemented (Baseline: 0 green financial mechanism; Timeline: Q4 of year 3). One financial Strengthening Plan for FONABOSQUE	
ACTIVITY 4.2.2	
One methodology designed. 20,680 persons trained. At least four roundtables realized.	i) Family farmers living in areas with very high and high risk of droughts, hailstorms and floods especially those farmers who have benefitted from project interventions in components 1, 2 and 3. ii) Family farmers who are members of irrigation associations. ii) Family farmers producing products for basic food supply
ACTIVITY 4.3.1	
Indicator	**Criteria**
At least 80% of the municipalities established protocols for EWS dissemination.	i) Family farmers living in areas with very high and high risk of droughts, hailstorms and floods especially those farmers who have benefitted from project interventions in components 1, 2 and 3. ii) Public officers, local CSOs and relevant academia with linkages to project areas where project interventions of components 1, 2 and 3 have taken place
ACTIVITY 4.3.2	
At least 7 territorial platforms for comprehensive and resilient water management and sustainable production systems have been strengthened and/or set up.	i) Municipalities where family farmers are residing that have very high and high risk of droughts, hailstorms and floods especially those municipalities who have benefitted from project interventions in components 1, 2 and 3. ii) Areas of family farmers producing products for basic food supply iii) Municipal governments that show willingness to include a specific budget in their annual budget plans for aspects of mitigation and adaptation to climate change

Please note that the green rows in the following table show the total number of beneficiaries per output. The initial assumptions include:

- Total amount of UPAs = 333,330
- Total amount of UPAs (Households, HHs) that are direct beneficiaries = 81,551
- Total amount of UPAs (HHs) that are not direct beneficiaries = 251,779
- Average size of HH = 4 members
- Gender distribution = 52% male, 48% female

Table 1 Beneficiaries (direct and indirect) per activity and output

Component	Output	Activity	BENEFICIARIES BY SOURCE OF FUNDING			Population by Gender		BENEFICIARIES INDIRECT BY SOURCE OF FUNDING			Population Indirect by Gender	
			MMAyA*	FAM**	GCF***	Male	Female	MMAyA	FAM	GCF	Male	Female
			Direct	Direct	Direct	Direct	Direct	Indirect	Indirect	Indirect	Indirect	Indirect
Component 1	Output 1.1	**Total**	-	-	**23,551**[2]	**12,247**	**11,304**	-	-	**70,653**	**36,740**	**33,913**
		Activity 1.1.1	-	-	4,680[3]	2,434	2,246					
		Activity 1.1.2	-	-	23,551	12,247	11,304					
	Output 1.2	**Total**	-	-	**4,947**[4]	**2,572**	**2,375**			**1,021,957**	**531,418**	**490,539**
		Activity 1.2.1	-	-	4,000	2,080	1,920					
		Activity 1.2.2.	-	-	4,000	2,080	1,920					
		Activity 1.2.3	-	-	947	492	455					
Component 2	Output 2.1	**Total**	**33,104**[5]	-	**24,896**[6]	**30,160**	**27,840**			**74,688**	**38,838**	**35,850**
		Activity 2.1.1.	33,104	-	12,000	23,454	21,650					
		Activity 2.1.2.	-	-	8,896	4,626	4,270					
		Activity 2.1.3.	-	-	4,000	2,080	1,920					
	Output 2.2	**Total**	**52,396**[7]	**8,896**	**8,896**[8]	**36,498**	**33,690**			**1,217,599**	**633,151**	**584,448**
		Activity 2.2.1	-	-	8,896	4,626	4,270					
		Activity 2.2.2.	52,396	-	-	27,246	25,150					

[2] Number of direct beneficiaries who carry out agricultural activity in the area of intervention of the Project.
[3] Number of people benefiting from innovative technologies to tackle climate change 4,680 (thermal blankets, hail meshes, hydrogel)
[4] Number of direct beneficiaries per training
[5] Number of direct beneficiaries of the construction of reservoirs and dams
[6] Number of direct beneficiaries of the irrigation systems training process
[7] Number of direct beneficiaries of the national government for the construction of reservoirs and dams.
[8] Number of direct beneficiaries of irrigation systems.

		Activity 2.2.3.	-	-	8,896	4,626	4,270					
		Activity 2.2.4.	-	8,896	-	4,626	4,270					
Component 3	Output 3.1	**Total**	**35,020**[9]	**-**	**46,531**	**42,407**	**39,144**			1,251,769	650,920	600,849
		Activity 3.1.1.	-	-	46,531	24,196	22,335					
		Activity 3.1.2.	35,020	-	22,980	18,210	16,810					
	Output 3.2	**Total**	**-**	**-**	**58,000**	**30,160**	**27,840**			**1,181,116**	**614,180**	**566,936**
		Activity 3.2.1	-	-	58,000	30,160	27,840					
Component 4	Output 4.1	**Total**	**-**	**-**	400	208	192			1,008,316	524,324	483,992
		Activity 4.1.1	-	-	400	208	192					
	Output 4.2	**Total**	**-**	**-**	**22,904**	**11,910**	**10,994**			1,075,828	559,431	516,397
		Activity 4.2.1	-	-	2,224	1,156	1,068					
		Activity 4.2.2	-	-	20,680	10,754	9,926					
	Output 4.3	**Total**	**-**	**400**	**81,551**	**42,407**	**39,144**			**1,251,769**	**650,920**	**600,849**
		Activity 4.3.1	-	-	800	416	384					
		Activity 4.3.2	-	-	800	416	384					
		Activity 4.3.3	-	400	-	208	192					
		Activity 4.3.4	-	-	81,551	42,407	39,144					

For more detail, please review the Annex document in which the adjustment has also been made, in accordance with **E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)**

*MMAyA = Ministry of Environment and Water
**FAM = Federation of Municipal Associations
***GCF = Green Climate Funds

Total of DIRECT BENIFICIARIES (GCF CONTRIBUTION) = 81,551 heads of households (39,144 women and 42,407 men)

In table 1, the calculation of indirect beneficiaries is as follows for output 1.1 and 2.1
Calculation: amount of HH direct beneficiaries * (average HH size – head of HH)

[9] Number of direct beneficiaries involved in the conservation of water sources

In table 1, the calculation of indirect beneficiaries for the remainder of the outputs (all other outputs, excluding 1.1. and 2.1) is as follows:
Calculation: (amount of HH direct beneficiaries * (average HH size – head of HH)) + (amount of HH not direct beneficiaries * average HH size)
This is based on the assumption that the households in the project area will indirectly benefit from these outputs
The amount of HH not direct beneficiaries has been considered to be 251,779 households, see also the details of the calculations below in Section 2.

2. Indirect beneficiaries

The indirect beneficiaries of the RECEM Valles Project are the people living within the project's area of influence, which includes 65 municipalities and at least 8 million hectares of the Bolivian Valleys Macro-region.

The methodology for the identification of indirect beneficiaries has been defined based on the total number of Agricultural Production Unit (UPA) (explained in the preceding section) existing in the Valleys Macro-region. There are 333,330 UPAs in the Macro-region.

There is an initial assumption that the average household size is four members, based on the data collected from the last census.

The project identifies two types of indirect beneficiaries:

- Indirect beneficiaries from the interventions on climate-resilient agriculture technologies and modernized on farm climate-proofed irrigation (**indirect beneficiaries A**)
- Indirect beneficiaries who will benefit from the implementation of early warning systems and the implementation of restoration activities, support for production systems and capacity building (**indirect beneficiaries B**)

1. Calculation of indirect beneficiaries A:

Indirect beneficiaries A = Number of direct beneficiaries x (size of family household - 1)

81,551 * (4 - 1) = 244,653

2. Calculation of indirect beneficiaries B

Indirect beneficiaries B = (Number of heads of households who are not direct beneficiaries) * (size of family household)

1,007,116 = 251,779 * 4

To obtain the total number of heads of households who are not direct beneficiaries, we take the total amount of heads of households there are in the Macro Valles Region and subtract the direct beneficiaries, as follows:

The total amount of heads of households– direct beneficiaries = Total number of heads of household who are not direct beneficiaries

333,330 – 81,551 = 251,779

3. Calculation of the total amount of indirect beneficiaries, which comes from adding types A and B:

Total indirect beneficiaries = Indirect beneficiaries A + Indirect beneficiaries B

1,251,769 = 244,653 + 1,007,116

Regarding the percentage ratio of male and female beneficiaries, the same formula used to identify the population by sex of direct beneficiaries was applied, i.e. 52% men and 48% women, based on the population recorded in the Population and Housing Census (INE 2012).

Based on the above, the total number of indirect beneficiaries has been determined as follows:

Table 2 Indirect beneficiaries of the project

Indirect beneficiaries	**Males**	**Females**
81,551 * 3 = 244,653	127,220	117,433
333,330 – 81,551 = 251,779 251,779 * 4 = 1,007,116	523,700	483,416
Total indirect beneficiaries : 1,251,769	650,920	600,849

TOTAL DIRECT AND INDIRECT BENEFICIARIES PER ARA

Table 3 Direct beneficiaries per ARA

Component number	Output number	Output name	GCF Adaptation Results Area (ARA 1-4)							
			ARA 1		ARA 2		ARA 3		ARA 4	
			Most vulnerable people and communities		Health, well-being, food and water security		Infrastructure and built environment		Ecosystems and ecosystem services	
			Male	Female	Male	Female	Male	Female	Male	Female
Outcome 1	Output 1.1	Climate resilient agriculture implemented and managed by smallholders for increasing the productivity and sustainability of their agroecosystems	12,247	11,304	12,247	11,304				
	Output 1.2	Increased market access of climate resilient agricultural products	2,572	2,375	2,572	2,375				
Outcome 2	Output 2.1	Enhanced and modernized on-farm climate-proofed irrigation systems			30,160	27,840				
	Output 2.2	Strengthened capacities for the management of on-farm climate-proofed irrigation			36,498	33,690				
Outcome 3	Output 3.1	Restored and conserved ecosystem management for enhanced climate resilient watersheds			42,407	39,144			42,407	39,144
	Output 3.2	Information and long-term monitoring system for water sources at place			30,160	27,840			30,160	27,840
Outcome 4	Output 4.1	Strengthening capacities for national and sub-national government entities to implement policies and norms for the climate-resilient food production under irrigation systems, integral watershed management and monitoring of ecosystem functions and services	208	192	208	192			208	192
	Output 4.2	Improved financial mechanisms that support climate-resilient agricultural production and irrigation systems to mobilize increased finance for farmers	11,910	10,994	11,910	10,994			11,910	10,994
	Output 4,3	Strengthening local governance in participatory climate adaptation, early warning systems and long-term monitoring systems	42,407	39,144	42,407	39,144			42,407	39,144

DIRECT BENEFICIARIES	GCF Adaptation Results Area (ARA 1-4)							
	ARA 1		ARA 2		ARA 3		ARA 4	
	Most vulnerable people and communities		Health, well-being, food and water security		Infrastructure and built environment		Ecosystems and ecosystem services	
Is there overlap between the beneficiaries? / Initial assumptions	Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will strengthen capacities of government entities (O 4.1), improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2, and between O 4.1 and O 4.3. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), and 4.2		Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 2 improves water reservoirs for farmers (O 2.1), and their capacity for the management of on-farm climate proof irrigation (O 2.2). Output 3 restored and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2) Outcome 4 will strengthen capacities of government entities (O 4.1), improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2), Outcome 2 (both O 2.1 and O2.2), Outcome 3 (both O 3.1 and O 3.2) and Outcome 4 (O 4.1 and 4.2);				Output 3 restores and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2)	
	Male	Female	Male	Female	Male	Female	Male	Female
TOTAL DIRECT BENEFICIARIES (without double counting)	42,407	39,144	42,407	39,144	0	0	42,407	39,144
	81,551		81,551		0		81,551	
Mid-term target (40% of final target)	17,680	16,320	17,680	16,320	0	0	17,680	16,320
	34,000		34,000		0		34,000	

Table 4 Indirect beneficiaries per ARA

Component number	Output number	Output name	GCF Adaptation Results Area (ARA 1-4)			
			ARA 1	ARA 2	ARA 3	ARA 4
			Most vulnerable people and communities	Health, well-being, food and water security	Infrastructure and built environment	Ecosystems and ecosystem services

			Male	Female	Male	Female	Male	Female	Male	Female
Outcome 1	Output 1.1	Climate resilient agriculture implemented and managed by smallholders for increasing the productivity and sustainability of their agroecosystems	36,740	33,913	36,740	33,913				
	Output 1.2	Increased market access of climate resilient agricultural products	531,418	490,539	531,418	490,539				
Outcome 2	Output 2.1	Enhanced and modernized on-farm climate-proofed irrigation systems			38,838	35,850				
	Output 2.2	Strengthened capacities for the management of on-farm climate-proofed irrigation			633,151	584,448				
Outcome 3	Output 3.1	Restored and conserved ecosystem management for enhanced climate resilient watersheds			650,920	600,849			650,920	600,849
	Output 3.2	Information and long-term monitoring system for water sources at place			614,180	566,936			614,180	566,936
Outcome 4	Output 4.1	Strengthening capacities for national and sub-national government entities to implement policies and norms for the climate-resilient food production under irrigation systems, integral watershed management and monitoring of ecosystem functions and services	524,324	483,992	524,324	483,992			524,324	483,992
	Output 4.2	Improved financial mechanisms that support climate-resilient agricultural production and irrigation systems to mobilize increased finance for farmers	559,431	516,397	559,431	516,397			559,431	516,397
	Output 4,3	Strengthening local governance in participatory climate adaptation, early warning systems and long-term monitoring systems	650,920	600,849	650,920	600,849			650,920	600,849

INDIRECT BENEFICIARIES	**GCF Adaptation Results Area (ARA 1-4)**			
	ARA 1	**ARA 2**	**ARA 3**	**ARA 4**

	Most vulnerable people and communities		Health, well-being, food and water security		Infrastructure and built environment		Ecosystems and ecosystem services	
Is there overlap between the beneficiaries? / Initial assumptions	Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will strengthen capacities of government entities (O 4.1), improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2, and between O 4.1 and O 4.3. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), and 4.2		Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 2 improves water reservoirs for farmers (O 2.1), and their capacity for the management of on-farm climate proof irrigation (O 2.2). Output 3 restored and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2) Outcome 4 will strengthen capacities of government entities (O 4.1), improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2), Outcome 2 (both O 2.1 and O2.2), Outcome 3 (both O 3.1 and O 3.2) and Outcome 4 (O 4.1 and 4.2);			Output 3 restores and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2)	
	Male	Female	Male	Female	Male	Female	Male	Female
TOTAL INDIRECT BENEFICIARIES (without double counting)	524,324	483,992	614,180	566,936	0	0	524,324	483,992
	1,008,316		1,181,116		0		1,008,316	
Mid-term 40%	209,730	193,597	245,672	226,774	0	0	209,730	193,597
	403,327		472,446		0		403,327	

TOTAL DIRECT AND INDIRECT BENEFICIARIES PER SUPPLEMENTARY INDICATOR

Table 5 Direct beneficiary per supplementary indicator

Component number	**Output number**	**Output name**	**Supplementary indicators**			
			Supplementary 2.1	**Supplementary 2.2**	**Supplementary 2.3**	**Supplementary 2.4**
			Beneficiaries adopting improved and/or new climate-resilient livelihood options	Beneficiaries with improved food security	Beneficiaries (female/male) with more climate-resilient water security	Beneficiaries covered by new or improved early warning systems

			Male	Female	Male	Female	Male	Female	Male	Female
Outcome 1	Output 1.1	Climate resilient agriculture implemented and managed by smallholders for increasing the productivity and sustainability of their agroecosystems	12,247	11,304	12,247	11,304				
	Output 1.2	Increased market access of climate resilient agricultural products	2,572	2,375	2,572	2,375				
Outcome 2	Output 2.1	Enhanced and modernized on-farm climate-proofed irrigation systems					30,160	27,840		
	Output 2.2	Strengthened capacities for the management of on-farm climate-proofed irrigation					36,498	33,690		
Outcome 3	Output 3.1	Restored and conserved ecosystem management for enhanced climate resilient watersheds					42,407	39,144		
	Output 3.2	Information and long-term monitoring system for water sources at place					30,160	27,840		
Outcome 4	Ouput 4.1	Strengthening capacities for national and sub-national government entities to implement policies and norms for the climate-resilient food production under irrigation systems, integral watershed management and monitoring of ecosystem functions and services					208	192		
	Output 4.2	Improved financial mechanisms that support climate-resilient agricultural production and irrigation systems to mobilize increased finance for farmers	11,910	10,994	11,910	10,994				
	Output 4,3	Strengthening local governance in participatory climate adaptation, early warning systems and long-term monitoring systems					42,407	39,144	42,407	39,144

DIRECT BENEFICIARIES	**Supplementary indicators**			
	Supplementary 2.1	**Supplementary 2.2**	**Supplementary 2.3**	**Supplementary 2.4**
	Beneficiaries adopting improved and/or new climate-resilient livelihood options	Beneficiaries with improved food security	Beneficiaries (female/male) with more climate-resilient water security	Beneficiaries covered by new or improved early warning systems

Is there overlap between the beneficiaries? / Assumptions	Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), assuming that the financial mechanisms will support those same farmers.		Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), assuming that the financial mechanisms will support those same farmers.		Outcome 2 improves water reservoirs for farmers (O 2.1), and their capacity for the management of on-farm climate proof irrigation (O 2.2). Output 3 restored and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2) Outcome 4 will strengthen capacities of government entities (O 4.1), and local governance in participatory climate adaptation in local stakeholders (4.3). There may be some overlap between Outcome 2 (both O 2.1 and O2.2), Outcome 3 (both O 3.1 and O 3.2) The calculation of total beneficiaries will be performed including only the beneficiaries of 3.1 (farmers) that improve their livelihoods with improved climate-proofed irrigation, excluding government entities.		Outcome 4 will strengthen local governance in participatory climate adaptation, early warning and long-term monitoring systems in local stakeholders (4.3).	
	Male	Female	Male	Female	Male	Female	Male	Female
TOTAL DIRECT BENEFICIARIES (without double counting)	14,819	13,679	14,819	13,679	42,407	39,144	42,407	39,144
	28,498		28,498		81,551		81,551	
Mid-term target (40% of final target)	5,928	5,472	5,928	5,472	16,963	15,658	17,680	16,320
	11,400		11,400		32,621		34,000	

Table 6 Indirect beneficiary per supplementary indicator

Component number	Output number	Output name	Supplementary indicators							
			Supplementary 2.1		Supplementary 2.2		Supplementary 2.3		Supplementary 2.4	
			Beneficiaries adopting improved and/or new climate-resilient livelihood options		Beneficiaries with improved food security		Beneficiaries (female/male) with more climate-resilient water security		Beneficiaries covered by new or improved early warning systems	
			Male	Female	Male	Female	Male	Female	Male	Female
Outcome 1	Output 1.1	Climate resilient agriculture implemented and managed by smallholders for increasing the productivity and sustainability of their agroecosystems	36,740	33,913	36,740	33,913				
	Output 1.2	Increased market access of climate resilient agricultural products	531,418	490,539	531,418	490,539				
Outcome 2	Output 2.1	Enhanced and modernized on-farm climate-proofed irrigation systems					38,838	35,850		
	Output 2.2	Strengthened capacities for the management of on-farm climate-proofed irrigation					633,151	584,448		
Outcome 3	Output 3.1	Restored and conserved ecosystem management for enhanced climate resilient watersheds					650,920	600,849		
	Output 3.2	Information and long-term monitoring system for water sources at place					614,180	566,936		
Outcome 4	Ouput 4.1	Strengthening capacities for national and sub-national government entities to implement policies and norms for the climate-resilient food production under irrigation systems, integral watershed management and monitoring of ecosystem functions and services					524,324	483,992		
	Output 4.2	Improved financial mechanisms that support climate-resilient agricultural production and irrigation systems to mobilize increased finance for farmers	559,431	516,397	559,431	516,397				
	Output 4,3	Strengthening local governance in participatory climate adaptation, early					650,920	600,849	650,920	600,849

		warning systems and long-term monitoring systems								

INDIRECT BENEFICIARIES	**Supplementary indicators**							
	Supplementary 2.1		**Supplementary 2.2**		**Supplementary 2.3**		**Supplementary 2.4**	
	Beneficiaries adopting improved and/or new climate-resilient livelihood options		Beneficiaries with improved food security		Beneficiaries (female/male) with more climate-resilient water security		Beneficiaries covered by new or improved early warning systems	
Is there overlap between the beneficiaries? / Assumptions	Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), assuming that the financial mechanisms will support those same farmers.		Outcome 1 includes farmer that will receive climate-resilient technologies (O 1.1) and increase the market access for their products (O 1.2). Outcome 4 will improve financial mechanisms for farmers (O 4.2). There may be some overlap between Outcome 1 (both O 1.1 and O 1.2) and O 4.2. The calculation of total beneficiaries will be performed including the beneficiaries of O 1.1 and O1.2 (farmers), assuming that the financial mechanisms will support those same farmers.		Outcome 2 improves water reservoirs for farmers (O 2.1), and their capacity for the management of on-farm climate proof irrigation (O 2.2). Output 3 restored and conserved ecosystem management (O 3.1) and information and long-term monitoring for water sources at place (O3.2) Outcome 4 will strengthen capacities of government entities (O 4.1), and local governance in participatory climate adaptation in local stakeholders (4.3). There may be some overlap between Outcome 2 (both O 2.1 and O2.2), Outcome 3 (both O 3.1 and O 3.2) and Outcome 4 (O 4.3). The calculation of total beneficiaries will be performed including only the beneficiaries of 2.1 (farmers) that improve their livelihoods with improved climate-proofed irrigation, excluding government entities.		Outcome 4 will strengthen local governance in participatory climate adaptation, early warning and long-term monitoring systems in local stakeholders (4.3).	
	Male	Female	Male	Female	Male	Female	Male	Female
TOTAL INDIRECT BENEFICIARIES (without double counting)	568,157	524,452	568,157	524,452	614,180	566,936	650,920	600,849
	1,092,609		1,092,609		1,181,116		1,251,769	
Mid-term target (40% of final target)	227,263	209,781	227,263	209,781	245,672	226,774	260,368	240,340
	437,044		437,044		472,446		500,708	