

# Concept Note

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## **Strengthening Climate Resilience of Ecosystems and Communities in the Province of Khenifra**

Morocco | Agricultural Development Agency (ADA)

28 November 2018



**GREEN  
CLIMATE  
FUND**

# Simplified Approval Process Concept Note

Project / Program Title:	<b>Strengthening Climate Resilience of Ecosystems and Communities in the Province of Khenifra</b>
Country(ies):	Morocco
National Designated Authority(ies) (NDA):	State Secretariat in charge of Environment and Sustainable Development
Executing Entities:	Provincial Directorate of the Agriculture (DPA) of Khenifra Province
Accredited Entity(ies) (AE):	Agricultural Development Agency (ADA)
Date of first submission/ version number:	<u>[2018-11-28] [V.1]</u>
Date of current submission/ version number:	<u>[2018-11-28] [V.1]</u>



Please submit the completed form to [sap@gcfund.org](mailto:sap@gcfund.org),  
using the following name convention in the subject line and file name:

**"CN-[Accredited Entity or Country]-YYYYMMDD"**

A. Project / Program Information (max. 1 page)			
<b>A.1. Project or Program</b>	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Program	<b>A.2. Public or private sector</b>	<input checked="" type="checkbox"/> public sector <input type="checkbox"/> Private sector
<b>A.3. Indicate the result areas for the project/program</b>  <b>Indicate the results of the project / program</b>	<p><b>Mitigation: Emissions reduction of:</b></p> <input checked="" type="checkbox"/> Access to the energy and energy production <input type="checkbox"/> Low emission transportation <input type="checkbox"/> Buildings, cities and industries and devices <input checked="" type="checkbox"/> Forestry and land use <p><b>Adaptation: Increased resilience of:</b></p> <input checked="" type="checkbox"/> _The most vulnerable people and communities <input checked="" type="checkbox"/> _Health and wellness, food and water security <input type="checkbox"/> Built infrastructure and environment <input checked="" type="checkbox"/> Ecosystems and Ecosystem Services		
<b>A.4. Estimated mitigation impact (tCO<sub>2</sub>eq over lifespan)</b>	222.75 t CO <sub>2</sub> eq per ha <sup>1</sup>	<b>AT 5. Estimated adaptation impact (number of direct beneficiaries and % of population)</b>	24,560 beneficiaries
<b>A.6. Indicative total project cost (GCF + co-financing)</b>	Amount: 10 million USD	<b>A7. Indicative GCF funding requested (max 10M)</b>	Amount: 9.3 million USD
<b>A.8. Mark the type of financial instrument requested for the GCF funding</b>	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan <input type="checkbox"/> Guarantee    Other: specify _____		
<b>A.9. Estimated duration of project/ program:</b>	5 years	<b>A.10. Estimated project/ Program lifespan</b>	This refers to the total period in which the investment is effective.
<b>A.11. Is the financing of the project preparation installation necessary?</b>	Yes <input type="checkbox"/> No. <input checked="" type="checkbox"/>	<b>A.12. Confirm overall ESS category is minimum to no risk</b>	<input checked="" type="checkbox"/> C or I-3
<b>A.13. Provide rational for the SSE categorization (100 words)</b>	<p>The project is categorized as C-type in terms of environmental and social risks. Based on the proposed components, the project is a concrete response to the reduction of environmental risks, particularly with respect to external events caused by climate change. The project also aims to improve the socio-economic conditions of local populations and reduce rural exodus, which are actions in favor of the social component.</p> <p>This categorization takes into account the environmental and social safeguards requirements of the GCF in as well as the requirements specified in the 12-03 law on environmental impact studies applicable in Morocco.</p>		
<b>A.14. Has the CN-been shared with the NDA?</b>	Yes <input checked="" type="checkbox"/> No. <input type="checkbox"/>	<b>A.15. Confidentiality</b>	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> not confidential

<sup>1</sup> The ratio used is 0.33 ton CO<sub>2</sub> eq per/year/ha (source: Study on the climate change mitigation potential in the agriculture sector in Morocco. Carbon balance of the Green Moroccan Plan actions. July 2012)

<p><b>A.16. Project/ National Program, objective and approach of the program/project (max 100 words)</b></p>	<p>The project addresses the vulnerability of rural populations in a mountainous area among the most affected by the effects of climate change «CC» in Morocco. It is about a territory composed of three communes located in the East of the Khenifra Province. The impact of CC can be observed in this territory by a significant increase in the frequency and intensity of extreme events such as droughts and floods and an irregularity and rarity of rainfalls.</p> <p>The objective of the proposed project is to strengthen the resilience of populations and fragile ecosystems in this territory with respect to the impact of CC.</p> <p>The proposed actions have been identified in a participatory approach in consultation with the different local stakeholders.</p> <p>With an estimated total cost of <b>9.3 million dollars</b>, the project is divided into three components:</p> <ol style="list-style-type: none"> <li>I. Strengthening the resilience of the territory and the local population to the effects of CC;</li> <li>II. Diversification of income sources of the local population in order to reduce the poverty and curb the rural exodus;</li> <li>III. Building the capacities of stakeholders.</li> </ol> <p>The implementation of this project will generate 74,060 Men/days of work and will affect an estimated population of 24,560 inhabitants.</p> <p>The implementation of the project will be ensured by a Project Management Unit (PMU) which will be based in the Provincial Directorate of Agriculture (DPA) in the Province of Khenifra. Given the multiplicity of actions proposed in the project, its implementation will involve other governmental partners. The project governance and coordination between the various partners will be ensured by the following two committees:</p> <ul style="list-style-type: none"> <li>• At the national level by a Steering Committee (COFIL), chaired by the Secretary General of the Ministry of Agriculture and Fisheries and composed of different stakeholders;</li> <li>• At the provincial level by a Provincial coordinating committee (CPC) chaired by the Governor of the Province of Khenifra.</li> </ul> <p>The actions proposed in this project have no negative impacts on the environment and the social components.</p>
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**B. Project / Program details (max. 3 pages)**

**B.1. Context and Baseline (max. 1 page)**

Morocco is a highly vulnerable country to the negative effects of CC, while its contribution to this phenomenon is extremely low given that its greenhouse gas emissions do not exceed 0.2% of the global emissions. The country is located in one of the driest regions<sup>2</sup> of the planet where impacts are observed by the increased frequency of extreme climate events (droughts and floods), the degradation of ecosystems and the scarcity of water resources<sup>3</sup>. For example, the pressure on natural resources has increased, affecting the resilience of forest and agriculture sector ecosystems, particularly because of the scarcity of water resources. The allocation of water resources per capita has decreased from 1 200 m<sup>3</sup> to 950 m<sup>3</sup> between 1990 and 2000. In 2025 it will probably be less than 632 m<sup>3</sup> per capita/year. Accordingly, Morocco is already considered at the threshold limit of «water stress», evaluated at 950 m<sup>3</sup> per capita/year and should reach the scarcity threshold of 500 m<sup>3</sup> per capita/year by 2030<sup>4</sup>. The vulnerability has been confirmed over many years of drought that hit the country and seriously affected the national economy, largely dependent on agriculture<sup>5</sup>, a sector seriously affected by the recurring droughts.

The project aims to reduce the vulnerability of a mountainous area among the most affected by CC in Morocco. It is about a territory composed of three communes located in the east of the province of Khenifra<sup>6</sup> (Kerrouchen, Oum Rbia and

<sup>2</sup> Morocco is characterized by different climate patterns depending on the areas, for instance the coastal areas benefit from a temperate climate, while the climate is desertic in the south and east of the country. (Source: Météo Maroc).

<sup>3</sup> Globally, the air temperature in Morocco, all seasons combined, increased on average from + 0.6 to +1.4 °C depending on the subregions, over the last 40 years (3rd National Communication of Morocco to the UN framework convention on CC, January 2016).

<sup>4</sup> Source: Water and the city in Morocco, Contemporary Maghreb Research Institute (IRMC), No. 62 August-September-October 2000

<sup>5</sup> The drought of 1994/95 caused a decline in the agricultural GDP by 45% and the national GDP by 8% (ADA, Beni Mellal, December 2012).

<sup>6</sup> The climate of the Khenifra Province is a Mediterranean-Mountain continental type (source: state of vulnerability and adaptation to CC, Subregion Beni-Mellal-Khenifra, 2017)

Aguelmam Azegza). A recent study<sup>7</sup> conducted in the subregion of Beni Mellal-Khenifra showed that the Province of Khenifra and specifically the project action area is very vulnerable to climate change (Figure 1). The effects of CC are observed in this area by a significant warming (**the maxima average of the hottest month is close to 40 °C**) with a significant increase in the frequency and intensity of extreme events such as droughts and floods and an irregularity of rainfalls<sup>8</sup>. Moreover, by 2050 and according to the IPCC RCP 8.5 scenario, the Province of Khenifra is going to experience a significant decrease in rainfall of up to nearly 19% particularly in the project area (Figure 2), and temperature changes from 6% to 20% (Figure 3).

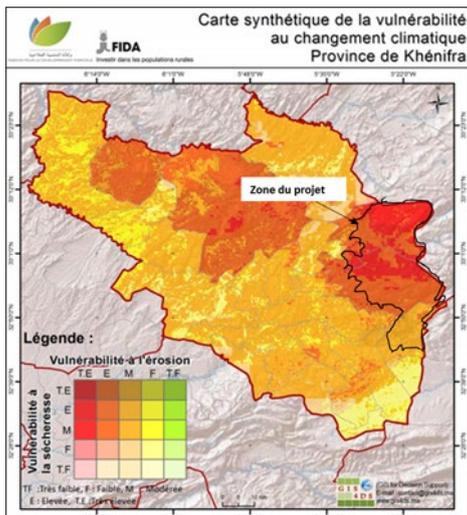


Figure 1: Synthetic climate change vulnerability map of the Province of Khenifra

Figure 2: Variation of precipitations between the reference period and the projected period of 2050 (RCP 8.5) of the Province of Khenifra

Figure 23 Observed and projected temperatures to 2050 (RCP 8.5) of the Province of Khenifra

The combined action of climatic fluctuations and human habits has led to changes in the dynamics of land use in the province of Khenifra in general and the project area in particular. Indeed, during the period 1996 to 2006, the surface area of cultivated lands increased by 41,450.02 ha, that is 20% compared to the initial area. This increase was at the expense of forests and rangelands, which decreased respectively by 6,289.4 ha and 32,659.46 ha due to clearing and excessive logging and rangelands exploitation. However, during the second ten years (2006-2016) considerable efforts have been made by the government, local authorities and populations to protect and develop forest resources in the province. Accordingly, forest's surface areas have increased from 242,191.19 ha in 2006 to 246,111.29 ha in 2016, a gain of 2%.

However, because of population growth and pressure on the land due to urbanization and arid climate, cultivated lands have gradually given place to bare soil. The surface area of the latter increased from 12,304.24 ha in 1996 to 15,138.03 ha in 2016.

Other changes have been observed in the province namely, reduction of water resources (drying up of sources and wells during drought), reduction of harvests, soil erosion<sup>9</sup> (estimated to 1,200 t/km<sup>2</sup>/year)<sup>10</sup> and degradation of biodiversity. In this respect, for example, the impacts on the Aguelmam Azegza lake, a Site of Biological and Ecological Interest (SIBE) classified as a non *aedificandi* natural monument, which has experienced a considerable drop in its water level (vertical drop of about ten meters) and a deterioration of its ecological health after severe droughts during the last decades. This site is also faced with the pollution caused by wild campers who resort in it as early as the month of April. This pollution increases its degradation.

<sup>7</sup> ADA-FIDA (June 2018): Study regarding the development of a map of vulnerability and adaptation to climate change of small farmers

<sup>8</sup> The analysis of the historical series (1935-2008) of the subregion of Beni Mellal-Khenifra showed a decrease in annual rainfall that has ranged from 275 to 1,025 mm over the period 1935 to 1980 to a range between 175 to 625 mm over the period 1980 to 2008. (source: GIZ, 2017: state of vulnerability and adaptation to CC, Beni-Mellal-Khenifra subregion).

<sup>9</sup> The intervention area is among the most exposed to erosion in Morocco, this was exacerbated by extreme phenomena.

<sup>10</sup> Source: challenges of natural resources management and rural development of an anthropogenic environment - case of Central Morocco, Moulay Driss el Jihad - Poitiers University

Moreover, the climate projections performed to the 2039 horizon foresee a drop in minimum temperatures of the order of -1.3°C<sup>11</sup>. In winter, the cold waves would be more and more frequent and intense. Indeed, the winter of the actual year 2018 was particularly harsh in the area of action of the project, heavy snowfall reaching in some places 3 meters were witnessed with record temperature drops of -10°C on the reliefs of more than 1800 m. These heavy snowfalls and harsh weather conditions resulted in the closure of several roads and tracks, which aggravated the isolation of the villages in the mountains. These climatic conditions have also had a negative impact on the forest as people are increasingly using firewood. These climatic phenomena aggravate the difficult situation in which the population of this zone is located. The latter already suffers from all the social issues: very high illiteracy rate, geographic isolation, poor access to drinking water supply (DWS) and access to electricity, lack of social facilities (schools, women and youth coaching facilities and distance from health care facilities). This situation has amplified the rural exodus since the area is experiencing a strong demographic decline<sup>12</sup>.

**Socio-economic indicators of the communes affected by the project**

	Illiteracy rate	Access to the DWS	Access to electricity	% of population having reached a high level of education.	Unemployment rate	Average distance to a paved road in km	Isolation rate	Schooling rate	Global Poverty rate
Project Area	61.7%	12.10%	46%	1.2%	between 3% and 23.6%	5	Between 20 and 50%	between 87% and 91%	50% to 60%
Morocco	32.20%	73%	73.90%	6.10%	16.20%	3	-	99.10%	11.7%

The dominant economic activity of this population, which suffers from a marked poverty, is sylvo-pastoral livestock farming, consisting mainly of sheep. This livestock farming is associated with a subsistence farming based on cereals conducted in bour and in some cases with fruit growing (apple, cherry, etc.). The latter recently introduced as part of the Green Morocco Plan (Plan Maroc Vert), remains limited despite pedoclimatic conditions favorable to the development of a high value-added arboriculture.

Livestock farming makes the most of its food needs from fallow and forest and puts pressure on it. The plant production is very vulnerable to CC and has generally low yields<sup>13</sup>. This situation is amplified by the low technicality of farmers. The territory has a rich and varied tourism potential (a very diversified natural landscape, a cedar forest and vast lakes) to attract ecotourists. But the ecotourism is not yet able to take off because of the geographic isolation and lack of lodging facilities. In addition, the population of this area has handcraft expertise (especially carpet weaving by women and marquetry: cedar woodworking), but the impact of these activities on the local population remains limited for many reasons: access to marketing channels, average quality, absence of points of sale, etc.

**B.2. Project / Program description (max. 1 page)**

The overall objective of the project is to significantly contribute to the strengthening of the resilience of the populations and fragile ecosystems of the territory through concrete adaptation and mitigation actions to CC. In addition, the proposed actions will contribute to reduce poverty and improve the living conditions of the rural population of the territory.

To this end, the project addresses the CC vulnerability of the populations by reducing their geographic isolation, improving their mobility including that of the students in snow period, provision of solar heating systems, improving their access to drinking water and electrification through energy-efficient equipment. The project also plans to set up a warning system for extreme weather events.

The project also plans to improve the income of the population through the promotion of alternative income-generating activities related in particular to green tourism, handicrafts and the development of high value-added crops. This latter action is to encourage farmers practice arboriculture over cereals. This has a triple advantage: income improvement, soil protection against erosion<sup>14</sup> and carbon sequestration. The project also aims to improve the resilience of the fragile ecosystems by improving erosion protection and reducing the pressure on forests by reducing the consumption of firewood through the supply of solar ovens to local populations.

The sustainability of all interventions of the project will be ensured through capacity building actions of the populations and professional organizations.

<sup>11</sup> Referring to the period 1980-2010, the simulations were performed at the horizon of the period 2010-2039 according to RCP4.5 scenarios (said optimistic), the scenario RCP8.5 said pessimistic forecast a drop of -1.4 °C (source: State of vulnerability and adaptation to CC, Region Beni-Mellal-Khenifra, 2017).

<sup>12</sup> The rural population of the province of Khenifra recorded negative Annual Growth Rate Average (-1.87), against a +0.01% at the national rural level.

<sup>13</sup> An average of 10qx / ha for grain against 17qx / ha nationally.

<sup>14</sup> By fixing soil, tree roots contribute to its conservation

The project includes three main components, namely:

- I. **Component 1: Strengthening the resilience of the territory and the local population to the effects of climate change;**
- II. **Component 2: Diversification of income sources of the local population in order to reduce poverty and curb the rural exodus;**
- III. **Component 3: Building the capacities of stakeholders.**

***Component 1: Strengthening the resilience of the territory and the local population to climate change***

This first component consists of two sub-components:

➤ **Sub-component 1.1: Strengthening the territory resilience:**

The strengthening of resilience of the territory will be achieved through two activities:

- Activity 1.1.1: Protection of land against erosion through the installation of gabion and planting cactus (25 ha): In addition to its soil support role, the cactus can be used for both food and feed purposes;
- Activity 1.1.2: Distribution of solar ovens to reduce the pressure on forests: This action will consist on distributing to the population of modern and efficient solar ovens based on a solar energy storage system.

➤ **Sub-component 1.2: Strengthening the resilience of the local population**

Strengthening the resilience of the local population will be performed through the following activities:

- Activity 1.2.1: improving the access to safe drinking water through solar pumping systems;
- Activity 1.2.2: improving the access to electricity through solar panels;
- Activity 1.2.3: equipping the community buildings (school facilities, student accommodation facilities, sanitary equipment, etc.) with solar heating systems to allow the population cope with cold waves that tend to be frequent and increase in intensity;
- Activity 1.2.4: reducing the geographic isolation through:
  - the development of tracks and works of art damaged by floods;
  - the acquisition of snow ploughs (during periods of snow some areas remain cut off from the rest of the world for several days due to lack of means of local communes to evacuate snow);
- Activity 1.2.5: acquiring minibuses to facilitate school transportation for students, especially during winter;
- Activity 1.2.6: establishing a warning system in case of extreme weather events, including the establishment of a metrological station<sup>15</sup>.

***Component 2: Diversification of income sources of the local population in order to reduce poverty and curb the rural exodus***

This component aims to change the social and economic model of the project area by the development and promotion of new growing business sectors (eco-tourism, handicrafts and high-value agriculture). The ultimate goal of this paradigm shift is to reduce pressure on the forest, stimulate a new dynamic of development and guide the population towards sectors where the action area has a very important potential. The diversification of sources of income will be achieved through:

- **Activity 2.1: Development of high added value fruit trees:** The conversion from cereals to arboriculture would improve farmers' incomes<sup>16</sup>, protect soils against erosion and mitigate the effect of CC by the sequestration of CO<sub>2</sub>. Three types of actions are planned:
  - The planting of apple and cherry with the installation of a water efficient irrigation system (70 ha);
  - The extension of Krouchen grape areas and its labeling as a local product. Indeed, this product which has an acknowledged specificity, is a product of good organoleptic quality that allows the valuation of sloping lands. The vineyard of Kerrouchen is a very old culture in the territory of the Kerrouchen town<sup>17</sup>. The current area is about 60 ha, the project aims to double this area to reach 120 ha;
  - The development and rehabilitation of irrigation canals of the small and medium hydraulics for watering fruit plantations: Its goal is to improve the efficiency of traditional irrigation networks. This efficiency can be improved by 50%.

<sup>15</sup> The territory of Kerrouchen, Oum Rbia and Aguelmam Azegza communes does not have climate warning system or weather station, so it is essential to better understand the effects of CC and to have appropriate knowledge

<sup>16</sup> The arboriculture income can reach up to \$ 10,000/ha against \$ 350/ha on average for cereals

<sup>17</sup> There are some feet over 100 years old which allowed the producers to develop a know-how of technical conduct in this territory with very rugged topography

- **Activity 2.2: Development of green and ecological tourism:** The tourism potential is still not valued and does not generate economic and social benefits for the local population. The actions planned for the development of tourism activity are:
  - The development of cottages to accommodate tourists at the inhabitant, this activity consists of the financial support of inhabitants wishing to welcome tourists and hikers at their houses<sup>18</sup>;
  - The development of hiking trails;
  - The development of an ecological campsite near the Aguelmam Azegza lake. The campsite will be located outside the protected site but it will enhance this site and protect it from wild campers (see B1). This campsite will adopt eco-responsible measures<sup>19</sup>.
- **Activity 2.3: Promotion of local crafts:** The planned action involves the establishment of an artisan village housing facilities for the production, sale and exhibition of handicrafts. This action will target primarily women and out of school young girls. This action will be conducted in partnership with the Ministry of handicrafts;
- **Activity 2.4: Support for income-generating activities (IGAs) through the establishment of a fund to finance income-generating activities:** mainly aimed at the target group “young unemployed women and men” The goal is to create self-employment carriers of added value and improved income at the household level. The IGA Funding will be through a call for projects. The innovative projects on adaptation to CC will be favored by using a project analysis grid on the subject.

### **Component 3: Building the capacities of stakeholders**

The project will focus on supporting and strengthening the capacity and skills of local institutional structures and local civic organizations. This component, which is of paramount importance for the success and sustainability of the project, is structured in two sub-components:

- **Sub-component 1: Building necessary capacities to cope with climate change:**
  - Activity 3.1.1: Inform and sensitize the population and local NGOs on the risks posed by CC and raise awareness of its role and potential responsibilities for CC adaptation and identify participatory adaptation measures. The information that will be produced by the warning system proposed under component 1 will be incorporated as part of this activity.
  - Activity 3.1.2: Strengthen the capacities of local communes and technical staff of governmental institutions through a transfer of knowledge on best adaptation practices acquired by other communities.
- **Sub-component 2: Strengthening of capacities to improve livelihoods:**
  - Activity 3.2.1: Organize training sessions for farmers on the efficient technical and economic management of agricultural production systems;
  - Activity 3.2.2: Strengthen the capacities of artisans to improve the design and quality of their products;
  - Activity 3.2.3: Support for training of mountain tourist guides;
  - Activity 3.2.4: Support to the establishment of a network of local NGOs to guide and IGA project proponents. This NGO network will benefit from a training program to provide them with the necessary means in order to be able to assist project holders in administrative procedures necessary to create their IGAs projects, to prepare business plans, mobilize financing and also to monitor projects that received funding. The hard core of these NGOs will be from unemployed graduates who have a certain level of education that allows them, through training, implement the necessary assistance to project proponents;
  - Activity 3.2.5: literacy for rural women: the fight against illiteracy among rural women positively influence the IGA success rate and their sustainability.

### **Project Risks**

Among the main risks identified, it is worth mentioning:

<sup>18</sup> Homestay accommodation allows the tourist to discover a culture and for the host family to generate additional income.

<sup>19</sup> Safe cleaning products for the environment, waste sorting, recycling, composting, solar energy for electricity and hot water, etc.

**✚ Repair and maintenance of infrastructure implemented during the project**

This risk arises mainly for the repair and maintenance of tracks, irrigation channels and DWS infrastructure. The impact of this risk is moderate for the following reasons:

- For the repair of tracks, besides the installation of gabions, whose main role is to reduce the degradation of road infrastructure, it is also planned the establishment of a MoU with the grouping of the Atlas communes for repair and maintenance of the road infrastructure put in place. This group has the necessary equipment for this kind of activity.
- While for the repair of other types of infrastructure (DWS, irrigation channels), it is planned to entrust local associations (associations of agricultural water users, local development associations, etc.) within the framework of MoUs.

**✚ Formulation and/sustainability of IGAs**

Given the very low level of education of the local population, it is likely that potential holders of IGA projects have difficulty in the formulation and management of their projects. For this reason, it is planned to set up a network of NGOs to ensure guidance and support to project holders, which will act as an interface between the project holders and the project management unit (see previous page). The project will finance the costs of the services provided by these NGOs, under an MoU that will define specific objectives and working modalities. Part of the cost of these services may be linked to the acceptance of the project by the IGA fund. After the project, these NGOs will have developed a know-how that they can exploit in the context of other projects.

**✚ Limited human resources for the implementation of the project**

For budgetary reasons, the human resources of the executing entity, in this case the DPA are relatively limited, and there is a risk that these resources may not be able to support the implementation of all project activities. For this reason, it is planned to set up a Project Management Unit (PMU) whose staff will be mobilized as part of technical assistance and dedicated entirely to the implementation of project activities. This PMU will be managed by the DPA.

**B.3. Expected project results aligned with the GCF investment criteria (max. 1 page)**

Are the expected project results aligned with GCF investment criteria (1 page maximum)

**Potential for paradigm shift**

The economic activity of the population at the project area is based on poorly developed agriculture associated with extensive livestock farming and forest exploitation. In addition, the agricultural production fluctuates due to the rainfall variability. Consequently, many households as they do not engage in extra-agricultural activities, fall back on livestock farming using the forest as their rangeland.

Thus, in addition to strengthening resilience and improving the living conditions of the targeted population, the proposed actions will contribute to the transformation of the entire economic model of the project area, which is based so far solely on sylvo-pastoral livestock farming and forest exploitation. Accordingly, the reconversion of occupied areas by low-yielding cereals and the development and promotion of new sectors (e.g., green tourism, handicrafts, etc.) will create an important change in the life style of the local inhabitants. This transformation would enable the local population generate new revenues from today's less developed business sectors while reducing their vulnerability to CC.

**Potential for sustainable development**

The project will generate permanent jobs through the income-generating activities, the activities related to green tourism, handicrafts and arboriculture. Occasional jobs will also be generated, and these are related to the work that will be performed under the project (development of tracks, irrigation canals, DWS, electrification, etc.). The estimations are about 35,000 permanent working days per year and 60,000 occasional work days.

The project will also have an important socio-economic impact, through the reduction of geographic isolation that will improve the population's access to education and health services. The introduction of minibuses for school transport will help reduce the school drop-out rate, increase school attendance, improve the schooling conditions of rural children (time to reach the school, walking distance, safety, etc.) and ensure equal opportunities to access school.

By improving the resilience of the natural capital of this area with respect to CC through the fight against erosion and the contribution to the forest protection, the project will contribute to the protection of the biodiversity of the area.

The installation of DWS systems and the supply of cooking ovens to households will improve the living conditions of women who are usually in charge of collecting water and firewood kilometers away from their dwellings. . Accordingly, women will enjoy more time to manage their income generating activities (IGAs). Another co-benefit of the DWS systems is the improvement of health conditions by avoiding certain waterborne diseases. The project also includes the fight against illiteracy of rural women, which still stands at 62%. This will have a positive impact on the success rate of IGAs as well as

their sustainability.

### **Requirements for beneficiaries**

Morocco is a country highly vulnerable to the negative effects of CC. It is located in one of the driest regions of the planet where the impacts would increasingly concern the amplification and increase of the frequency of extreme events (droughts and floods), the degradation of ecosystems, the scarcity of water resources, or again, forced migration of populations.

The beneficiary groups are in the Middle Atlas mountain area amongst the most affected areas by CC. In this area CC is manifested through a significant increase of the frequency and intensity of extreme events of drought and flooding and an irregularity and rarities of precipitation. This resulted in the reduction of water resources, reduction of crops, soil erosion, degradation of forests and biodiversity. It is likely that the intensity of these impacts will increase at a pace that is likely to accelerate. Moreover, these impacts will have more or less serious consequences on local populations given their limited capacities to adapt. Indeed, it is a population that suffers from poverty (among the highest rates in Morocco), illiteracy, geographic isolation and a deficit in social services and basic amenities. Therefore, a prioritization of activities is required to increase the resilience of the local population vis-à-vis CC, improve their living conditions and their income to get out of poverty.

### **Ownership by the beneficiary country of the project or program**

Climate change have many effects on Morocco. Adaptation to the observed and projected impacts in the incoming decades is necessary, in addition to the global CC mitigation actions. As such, the CC Policy in Morocco (PCCM<sup>20</sup>) established by the 2030 horizon is based on six strategic cross cutting pillars , including the improvement of CC knowledge and observation in the field, the prevention and reduction of risks of CC, the sensitization, the empowerment of stakeholders and the strengthening of their capacities, the consideration of territorial specificities and the active involvement of local and regional authorities. The proposed project is in perfect coherence with these strategic cross cutting pillars of the PCCM.

Furthermore, the project is in perfect coherence with the National Determined Contribution (NDC<sup>21</sup>) of Morocco with regard to the implementation of the Paris Agreement. The project thus represents an operational response to NDC actions and objectives, both in terms of adaptation and mitigation, and also offers an opportunity to learn from the project results for scaling up purposes in other subregions of Morocco.

The project is also consistent with the National Development Strategy of Rural Space and Mountain Areas (SNDERZM) implemented by the Directorate of development of rural space and mountain areas (DDERZM) of the Ministry of Agriculture, Fishery, Rural Development, Water and Forestry. This strategy is based on three components, the first concerns social upgrading through the generalization of access to basic services and socio-economic infrastructures, the second concerns integrated and territorialized projects of an economic or environmental nature and the third concerns structuring projects to reduce geographic isolation and strengthening the attractiveness of urban centers and tourist and energy stations. The implementation of SNDERZM, in particular its first component, was initiated by the launch of the Program for the Reduction of Territorial and Social Disparities (PRDTS) in 2017, which is divided into 12 subregional plans.

The project is also in line with the orientations of Pillar II of the Green Moroccan Plan (PMV), which are dedicated to the solidarity development of small-scale agriculture, particularly in difficult and rugged areas (mountains, oases, etc.). The PMV-Pillar II aims to substantially improve the income of 500 to 600,000 farms. The stakes are at the same time of economic development, escape from poverty, food security and stability, which also requires consideration of the sustainable management of the environment and natural resources. The PMV-Pillar II totals an investment of 16 to 18 billion MAD.

Finally, it should be noted that the project is articulated with the communal action programs "PAC". The PACs are local planning documents that are developed in a participatory manner and highlight the vision of future development of the commune as a set of objectives for a coherent and sustainable development.

### **Efficiency and performance**

Concerning the efficiency criteria (detailed financial structure, expected TRI, profitability and application of best practices), the feasibility study planned in the first phase should cover these estimates in detail.

## **C. Indicative financing / cost information (max. 2 pages)**

<sup>20</sup> [http://www.environnement.gov.ma/PDFs/politique\\_du\\_changement\\_climatique\\_au\\_maroc.pdf](http://www.environnement.gov.ma/PDFs/politique_du_changement_climatique_au_maroc.pdf)

<sup>21</sup> <http://www4.unfccc.int/ndcregistry/PublishedDocuments/Morocco%20First/Morocco%20First%20NDC-English.pdf>

### C.1. Financing by components (max ½ page)

Component	indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institution
Strengthening the resilience of the territory and the local population to the effects of climate change	5,000,000.00	4,650,000.00	Grant	350,000.00	National budget	Communes, and provincial council, INDH, National Weather
Diversification of income sources of the local population in order to reduce poverty and curb the rural exodus	3,500,000.00	3,255,000.00	Grant	245,000.00	National budget	Communes, INDH, Ministry of Tourism, Ministry of Social Economy and Handicraft, Ministry of agriculture
Building the capacities of stakeholders	700,000.00	651,000.00	Grant	49,000.00	National budget	INDH, Ministry of Tourism, Ministry of Social Economy and Handicrafts, Ministry of Agriculture, INDH
Project management (5%)	500,000.00	465,000.00	Grant	35,000.00	National budget	
Unexpected events (3%)	300,000.00	279,000.00	Grant	21,000.00	National budget	
<b>Indicative total cost (USD)</b>	<b>10,000,000.00</b>	<b>9,300,000.00</b>	Grant	<b>700,000.00</b>	National budget	

### C.2. Justification of GCF involvement (max 1/2 page)

#### Justification of the GCF involvement

In order to cope with CC, Morocco has made a proactive commitment to implement adaptation and mitigation actions as part of an integrated, participatory and accountable approach. This political will has resulted in the establishment of a national policy against CC, which constitutes the operational framework for the development of a medium and long-term strategy to respond in a proactive and ambitious manner to the challenges of CC. This policy represents the basis for coordinating the various measures and initiatives initiated to fight against CC and it is intended to be a structuring, dynamic, participatory and flexible political instrument to establish the fundamentals of CC resilient green growth. Nevertheless, the scale of the projects to be performed exceeds the national capacity and requires support from the international community, particularly from the Green Climate Fund. As such, a fundraising from the Green Climate Fund for the implementation of a project to strengthen the resilience of a highly sensitive area to CC, in this case the project area, will be a catalyst of efforts led in Morocco in this area. It will also promote synergies between climate finance and development finance. Indeed, the area is concerned by several development programs implemented and financed by Moroccan institutions as part of national strategies. We can mention in this respect (i) the Green Morocco Plan implemented by the Ministry of Agriculture, which carries out actions to convert cereal farming into arboriculture and intensify some sectors (beekeeping and red meat) and (ii) the program of the fight against territorial and social disparities implemented by the directorate of rural and mountain areas development of the same ministry that programmed several actions in the area. These actions are linked in particular to reduce geographic isolation, to upgrade schools, to set up primary social care structures and electrification.

Finally, it should be noted that the adaptation needs will have important budgetary implications for Morocco. Historically, over the period 2005-2010, Morocco devoted 64% of the country's climate expenditure to adaptation, i.e. 9% of national investment expenditure. The considerable part of the national investment budget dedicated to adaptation demonstrates the extent of the stakes for the Moroccan society. And this part is necessarily bound to increase. Morocco plans to invest at least 15% to 20% of the total investment budgets of the Kingdom for the adaptation of Morocco to Climate Change. In this context, Morocco seeks the support of the international community, which has devoted only 5% of climate finance to adaptation<sup>22</sup>.

<sup>22</sup> Climate Policy Initiative, 2017 : Global Landscape of Climate Finance

**C.3. Sustainability and replicability of the project (exit strategy) (max. 1/2 page)**  
**Sustainability and reproducibility of the project (exit strategy)**

The project will be implemented through the establishment of a Project Management Unit (PMU) which will be based at the premises of the Provincial Directorate of Agriculture (DPA) of Khenifra. This entity will provide operational management of the project under the supervision of the Provincial Director of Agriculture. In the agricultural field, the project technical support of the intended beneficiaries will be provided through the existing government advisory system. This include the National Office of Agricultural Advisory (ONCA) whose missions consist of providing support, supervision and advice to professionals in the agricultural production sector in terms of production techniques, valorization, marketing and farm management. This support will continue beyond the lifetime of the project, which is a guarantee of the sustainability of the actions undertaken in the agricultural field. In addition, the project foresees the establishment of local support structures for IGA project holders though trained local NGOs. The role of these NGOs will consist on strengthening the management capacities of project holders, which will eventually improve the viability of the IGA activities financed under this project.

Emphasis will also be placed on strengthening the capacities of local stakeholders, elected officials, communal staff and NGOs, this combined with other actions of the project will ensure the sustainability of actions and will extend the knowledge to other territories after the completion of the project. It should be noted in this respect that, in general, the improvement of skills and knowledge of beneficiaries is a major asset in sustaining the results of an intervention.

Moreover, when local stakeholders and populations are involved in the cooperation process, they are in a better position to ensure the continuity of the project's results, or even its sustainability. This is one of the reasons why the proposed project was designed in close consultation with the relevant governmental agencies and with the participation of the technical departments (DPA, ONCA, Waters and Forest), local NGOs, local elected representatives and the civil society. These consultations and discussions showed a strong support of all stakeholders to the project and a strong willingness of local officials to engage in the project. All these elements show that the investments as well as the results of the actions will be maintained beyond the project period and in the longer term. Indeed, the level of ownership of local stakeholders and population affected by climate change will have a positive impact on their motivations in to implement activities and ensure their sustainability.

Regarding the sustainability of the infrastructure built part of the project, a set of MoUs are planned as mentioned above, mainly with:

- The Atlas communes group for the repair and maintenance of road infrastructure in place;
- The associations of agricultural water users and local development associations for repair of other infrastructures (DWS, irrigation canals)

Finally, it should be noted that more details will be provided regarding the GCF exit strategy in more detail during the feasibility study of the project. This in-depth study will highlight the socio-economic factors as well as the financial and operational factors to ensure the durability of the project in order to take them into account during the setting up of the project.

**C.4 Stakeholders engagement in the project or programme (max ½ page)**  
**Stakeholder engagement in the project or program**

The idea of the project emanates from the Directorate of Development of the rural area and mountain areas "DDERZM" within the framework of the development of a socio-economic development program of Mountain areas in the Province of Khenifra. With the support of ADA (AE) and the DPA (EE), the most vulnerable localities and those most impacted by CC were identified. As such, several meetings and workshops were organized at the central and local level.

The first round of meetings was organized at the central level with ADA and DDERZM. By capitalizing on its experience in the follow-up and supervision of CC adaptation projects in Morocco, ADA has given a great support to the team in charge of preparing this concept note, particularly in terms of formulation of CC adaptation projects and programs taking into account the requirements of the Green Climate Fund.

The second round of meetings and workshops was organized at the local level, with the participation of the DDERZM, the Provincial Directorate of Agriculture (EE) and the various local stakeholders. Accordingly, the proposed actions were identified through a participatory process in the framework of consultation workshops in which the representatives of the different local stakeholders took part, including: Representatives of the concerned local communities (presidents of communes, directors of services and technical staff), representatives of the local authority, representatives of the civil society, representatives of several local governmental services (Agriculture, Waters and Forestry, Handcrafts, etc.).

This participatory process, already initiated within the framework of the Green Morocco Plan, will be maintained during the development of the funding proposal in order to adjust the project concept to the concerns and needs of the various stakeholders, on the one hand, and to ensure the necessary ownership as a guarantee of project success and sustainability, on the other hand.

**C.5 Monitoring and Evaluation and Reporting Plans (max ¼ page)**

*Please explain how monitoring and evaluation will be conducted under the project or program (systematic and simultaneous monitoring, interim and final evaluations and annual reports)*

The implementation of this project will be provided by various governing bodies, namely:

- At the national level, by the Steering Committee (COFIL), chaired by the Secretary General of the Ministry of Agriculture and Fisheries and composed of different stakeholders (ADA, DDERZM, DF, DIAEA, DSS, DDFP, ONCA, HCEFLCD, Delegated Ministry in charge of the handicrafts and the social and solidarity economy, Secretariat of State in charge of the Sustainable Development the GCF national focal point, Ministry of Tourism, etc...). This COFIL is the supervisory and validation body for the project activities. It ensures the validation of the project procedures manual, the annual programs, the related budgets, the progress reports and the results obtained;
- At the provincial level by a provincial coordinating committee (CPC) chaired by the Governor of the province of Khenifra. This committee is responsible for ensuring interactions between the various stakeholders at the local level, on the one hand, and the Project Steering Committee, on the other hand. This committee will mobilize local institutional actors (foster the interactions between the local communities and development partners, ensure the implementation of project MoUs and build on experiences and lessons learned from the project interventions. The CPC will be composed of representatives of the departments and institutions operating at the province of Khenifra. The secretariat of this committee will be provided by the Khenifra DPA;
- At the local level, by the Project Management Unit (PMU) based at the Khenifra DPA. In addition to its main role of coordination, monitoring and implementation of project activities, the PMU will be in charge, among others, of the organization of the activities of the CPC, the valorization of the results of the project and the implementation of the strategy of communication.

Furthermore, ADA as a GCF national accredited entity will assume the role and responsibilities of supervision. It will also ensure compliance with the rules and requirements of the Green Climate Fund.

Finally, it should be noted that the DPA will be responsible for the daily management of the project, while ADA, with the support of DDERZM, will supervise the implementation operation in accordance with the GCF requirements.

The project will include monitoring and evaluation activities conventionally applied to all projects financed by the Green Climate Fund. The monitoring and evaluation structure will be developed during the feasibility study of this project and will be integrated into the global monitoring system of ADA, DDERZM and DPA. The project monitoring will be performed through two types of indicators, the performance indicators and the process indicators. The first category is related to the effects and impact indicators. While the second category of indicators, includes monitoring indicators of the implementation through the monitoring of important milestones of the project. During the implementation of this project, a monitoring and evaluation unit will be set up within the PMU. It will have the task of monitoring the implementation of the project and passing the information from the local level to the national level. Periodic monitoring reports will be prepared and presented to the various project governance bodies (COFIL, CPC).

It is also planned to perform two types of project evaluation, a mid-term evaluation, the main objective of which will be to ensure the implementation in accordance with the initial forecasts and to make the necessary adjustments if necessary. The second type of evaluation is a terminal evaluation, which will be performed once the implementation of the project has been completed. It will aim to assess the achievement of expected results, draw lessons from this experience and make recommendations for future CC adaptation activities.

#### **D. Annexes**

- ESS screening checklist (Annex 1)
- Map indicating the location of the project/program (as applicable)
- Evaluation Report of previous project (as applicable)

## Annex 1: Environmental and Social Screening Checklist

### Part A: Risk Factors

The questions describe the "risk factors" of activities that would require additional assessments and information. Any "Yes" answers to the questions will make the proposal ineligible for the pilot program of streamlined approval process. The proposals for any of the risk factors may be considered as part of the regular project approval process

Exclusion criteria (exclusion criteria)	YES	NO
Will the activities involve associated facilities and will they require additional vigilance of these associated facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities involve trans-boundary impacts, including those that would require greater due diligence and notification to downstream riparian states?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities have a negative impact on working conditions and the health and safety of workers or will potentially employ vulnerable categories of workers, including women, child labor?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Could these activities generate hazardous wastes and pollutants, including pesticides and contaminate land, which would require additional studies on management, minimization and monitoring and compliance to the country and applicable international environmental quality standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities involve the construction, maintenance and rehabilitation of critical infrastructure (such as dams, reservoirs, riverbank and embankment infrastructure) that would require additional technical assessment and safety studies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed activities potentially involve the resettlement and expropriation, land acquisition and economic displacement of individuals and communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will activities be located in protected areas and ecologically significant areas, including critical habitats, key biodiversity areas and internationally recognized conservation sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities affect indigenous peoples who would require greater due diligence, a free, prior and informed consent (CLPE) and documentation of development plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the activities be located in areas considered to be of archaeological (prehistoric), paleontological, historical, cultural, artistic and religious value or having features considered as critical cultural heritage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Part B: Specific environmental and social risks and impacts

Assessment and Management of Environmental and Social Risks and Impacts	YES	NO	TBD
Has the EA provided the E & S risk category of the project in the concept note?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the EA provided the justification for the project categorization in the relevant sections of the concept note or funding proposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any additional requirements demanded by the country?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the identification of risks and impacts based on recent or up-to-date information?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labor and Working Conditions	YES	NO	TBD
Will the intended activities have an impact on working conditions, including conditions of employment, workers' organization, non-discrimination, equal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

opportunities, child labor and forced labor of direct workers, contractual and third parties?			
Will the proposed activities present health and safety risks to workers, including supply chain workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Resource Efficiency and Pollution Prevention</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Should the activities generate (1) emissions into the air; (2) releases to water; (3) emissions of greenhouse gases (GHG) related to the activity; and (5) waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Should activities use natural resources, including water and energy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will there be a need to develop detailed measures to reduce pollution and promote the sustainable use of resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Community Health, Safety, and Security</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities potentially generate risks and impacts on the health and safety of affected communities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be a need for an emergency preparedness and response plan that also describes how affected communities will be assisted in an emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be risks presented by security arrangements and potential conflicts at the project site for workers and the affected community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Land Acquisition and Involuntary Resettlement</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities likely involve voluntary transactions under buyer-purchaser-seller conditions and have they been properly communicated and consulted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities likely introduce invasive exotic species of flora and fauna affecting the biodiversity of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the activities have potential impacts on or depend on ecosystem services, including the production of living natural resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Indigenous Peoples</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activities have indirect impacts on indigenous peoples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will the ongoing process of stakeholder engagement and recourse mechanism be integrated into management / implementation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cultural Heritage</b>	<b>YES</b>	<b>NO</b>	<b>TBD</b>
Will the activity allow continued access to cultural heritage sites and properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be a need to prepare a procedure for the discovery of cultural heritage properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Sign-off:** *Specify the name of the person responsible for the environmental and social screening and Any Other approvals as May be required in the accredited entity's own management system.*

indicate the name of the person responsible for environmental and social monitoring and any other required approval in the accredited entity management system.

**Map indicating indication the rent of the project**

