SUB-REGIONAL ACTION PROGRAMME TO COMBAT DESERTIFICATION IN THE MAGHREB; 2011-2020

EXECUTIVE SUMMARY
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABBREVIATIONS AND ACRONYMS</td>
<td>4</td>
</tr>
<tr>
<td>I. <strong>INTRODUCTION</strong></td>
<td>5</td>
</tr>
<tr>
<td>1.1. Environmental challenges resulting from climate changes</td>
<td>7</td>
</tr>
<tr>
<td>1.2. Performance of SRAP-Maghreb 2000-2009</td>
<td>9</td>
</tr>
<tr>
<td>1.3. Lessons learnt from the evaluation of SRAP-Maghreb 2000-2009</td>
<td>11</td>
</tr>
<tr>
<td>1.4. Recommendations for the preparation of SRAP-Maghreb 2011-2020</td>
<td>13</td>
</tr>
<tr>
<td>II. <strong>CONTEXT OF THE FORMULATION OF THE SRAP-MAGHREB 2011-2020</strong></td>
<td>15</td>
</tr>
<tr>
<td>2.1. Strategic Plan 2008-2018 of the CCD</td>
<td>15</td>
</tr>
<tr>
<td>2.2. Objectives of the SRAP-Maghreb 2011-2020</td>
<td>16</td>
</tr>
<tr>
<td>2.3. Guiding principles of the SRAP 2011-2020</td>
<td>17</td>
</tr>
<tr>
<td>III. <strong>SUB-REGIONAL SUPPORTIVE PROJECTS AND PRIORITIES</strong></td>
<td>19</td>
</tr>
<tr>
<td>3.1. Sub Regional Supportive Project no 1: Establishment of an enabling</td>
<td>19</td>
</tr>
<tr>
<td>environment, awareness building and capacity strengthening for</td>
<td></td>
</tr>
<tr>
<td>combating DLDD and adaptation to climate change</td>
<td></td>
</tr>
<tr>
<td>3.2. Sub Regional Supportive Project no 2: resource mobilization and</td>
<td>24</td>
</tr>
<tr>
<td>transfer of technologies for combating DLDD and adaptation to</td>
<td></td>
</tr>
<tr>
<td>climate change.</td>
<td></td>
</tr>
<tr>
<td>3.3. Sub-Regional Supportive Project no 3: PROMOTION of scientific</td>
<td>26</td>
</tr>
<tr>
<td>research and inventory of available technologies relevant to</td>
<td></td>
</tr>
<tr>
<td>combating DLDD and conservation of natural resources .</td>
<td></td>
</tr>
<tr>
<td>3.4. Sub-Regional Supportive Project no 4: ESTABLISHMENT of an early</td>
<td>29</td>
</tr>
<tr>
<td>warning system for drought management, monitoring and</td>
<td></td>
</tr>
<tr>
<td>impact evaluation of combating desertification</td>
<td></td>
</tr>
<tr>
<td>3.5. Summary of Cost and financing of the SRAP</td>
<td>31</td>
</tr>
<tr>
<td>IV. <strong>PARTNERSHIPS FOR SUPPORTING THE SRAP INTERVENTIONS</strong></td>
<td>33</td>
</tr>
<tr>
<td>V. <strong>IMPLEMENTATION MECHANISMS, MONITORING AND EVALUATION</strong> of SRAP-</td>
<td>35</td>
</tr>
<tr>
<td>Maghreb 2011-2020</td>
<td></td>
</tr>
</tbody>
</table>
### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>United Nations Convention to combat desertification</td>
</tr>
<tr>
<td>CILSS</td>
<td>Comité permanent inter-états de lutte contre la sécheresse au Sahel</td>
</tr>
<tr>
<td>CMPE-DD</td>
<td>Charter on the protection of the environment and sustainable development</td>
</tr>
<tr>
<td>COP</td>
<td>Conference of Parties</td>
</tr>
<tr>
<td>DLDD</td>
<td>Desertification, land degradation and Drought</td>
</tr>
<tr>
<td>ICARDA</td>
<td>International Center for Agricultural research in Dry Areas</td>
</tr>
<tr>
<td>IPECC</td>
<td>Intergovernmental Panel on the Evolution of Climate Change</td>
</tr>
<tr>
<td>GM</td>
<td>Global Mechanism</td>
</tr>
<tr>
<td>SSO</td>
<td>Sahara and Sahel Observatory</td>
</tr>
<tr>
<td>NAP</td>
<td>National Action Program</td>
</tr>
<tr>
<td>NGO</td>
<td>Non governmental organization</td>
</tr>
<tr>
<td>RAP</td>
<td>Regional Action Program</td>
</tr>
<tr>
<td>SCIDE-UMA</td>
<td>Information exchange system on desertification and environment for the UMA countries</td>
</tr>
<tr>
<td>SRAP</td>
<td>Sub-regional action program</td>
</tr>
<tr>
<td>UMA</td>
<td>Arab Maghreb Countries</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>UNCBD</td>
<td>United Nations Convention for biodiversity conservation</td>
</tr>
<tr>
<td>UNFCCC</td>
<td>United Nation Framework Convention for Climate Change</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

The present SRAP-Maghreb covering the period 2011-2020 (SRAP-Maghreb 2011-2020) is a response of the UMA countries to decision 3/COP 8, the recommendations of CRIC 7 and decision 2 COP 9 calling for the alignment of NAPs, SRAPs and RAPs with the CCD Decennial Strategic Plan 2008-2018. It is prepared through a participatory process and takes into consideration: (i) the findings of a participatory evaluation of the UMA countries NAPs and the SRAP-Maghreb 2000-2009; and (ii) the recommendations of a consultation workshop held in Rabat from 19 to 21 May 2010.

Covering an area of 5.7 million km² and a population of about 87 million inhabitants of which 50% are rural whose livelihoods are dependent on vulnerable natural resources; the Maghreb region is composed of narrow coastal plains, mountains ranges and high plateaus. Soils resources are limited, 70% of which are not cultivable, 15.7% are rangelands, 2% under forest and 4% are cultivable of which only 8% irrigated. Water resources are scarce and overexploited. The climate is predominantly arid, highly variable with an annual rainfall unequally distributed spatially and
seasonally, resulting into a fragile vegetative cover, high intensity of soil erosion and desertification

The natural resources of the sub-region are affected by a variety of desertification, land degradation and drought (DLDD) processes. Over 120 million hectares of land are already in an advanced stage of desertification. The main manifestations of soil and natural resources degradation are: (i) severe reduction of the natural vegetative covers particularly in the watershed and rangeland areas resulting into the acceleration of soil erosion, limited recovery of soil organic matter, reduced water infiltration capacity and decreasing agriculture and agro pastoral productivity; (ii) loss of crop and animal biodiversity as a result of habitat alteration; (iii) depletion of water resources with some rivers disappearing or being silted; (iv) a trend toward the reduction of rainfall quantities over the last 40 years in the Maghreb region with 30% in Morocco according to the International Panel on the Evolution of Climate Change (IPECC); and (v) land desalinization as a result of inefficient irrigation using saline water over 6 g per liter particularly in the Oasis of southern
Tunisia according to SSO studies on the Northern Sahara Aquifer System (NSAS).

1.1- Environmental challenges resulting from climate changes

The sub-region is highly exposed to severe bad weather conditions. According to the fourth IPECC evaluation report (November 2007), the climatic conditions of the Maghreb sub-region would be characterized by: (i) an increase of the temperature by one to four degree Celsius for the short term and up to 9 degree Celsius during the period of June-to August by the end of the century; and (ii) a reduction of the average annual rainfall by 20% along the Mediterranean coast on the long run. Being predominantly rainfed, the variations of rainfall decreases will translate into high fluctuations in agriculture production and productivity from one year to another, modifications of planting seasons and a shortening of the vegetation period. For some ecosystems, yields would drop to 50% under rainfed cultivation by 2020. Severe floods will be also a frequent phenomenon.

The impact of climate changes would be the most felt on water which is the major vulnerable resource in the sub-region. De facto, without
taking into consideration climate changes, water availability per habitant will decrease by half from now to 2050. Irrigation practices are not viable. The overexploitation of the underground water for agriculture production had already reduced severely the water resources and increased their pollution level through salinization.

Adaptation to climate changes will affect the current agriculture production systems and will result into their adjustments and modifications at all levels, local, national, regional and international. On the other hand, there is a considerable potential for increasing agriculture production and productivity through the adoption of environmental friendly practices while at the same time reducing the devastating effects of climate changes. The financial support announced at the L’Aquila G-8, the commitments made at the Rome world food summit and the financial contribution pledged at the Copenhagen United Nations Conference on climate changes provide good opportunities to finance research programs on adaptation to climate changes.
1.2- Performance of SRAP-Maghreb 2000-2009

Aiming at strengthening collaboration with the Maghreb countries at the regional and international levels, the achievements of SRAP-Maghreb 2000-2009 included the conclusion of several partnership agreements. The major ones were with: (i) CILSS and ICARDA to promote research on DLDD and conservation of natural resources; and (ii) the Islamic Development Bank, the CCD Executive Secretariat, the Global Mechanism (GM) of the CCD, the World Bank and the EU for resource mobilization. The above partnerships contributed to achieve the following results as of 31 December 2009:

Regarding the promotion of research for development on themes relevant to DLDD and conservation of natural resources, the achievements included: (i) the establishment of a sub-regional research award on CCD issues, granted on a competitive basis to the best research output of the year; and (ii) the preparation of an inventory on research institutions and research capabilities on DLDD in the sub-region.

Regarding the elaboration of thematic maps, the results included: (i) the preparation of a desertification map for the Maghreb sub-region;
and (ii) the preparation of a water resources map for the Maghreb sub-region. Both maps are widely disseminated and are being used as planning and management tools.

Regarding education and public awareness on DLDD issues, the achievements included: (i) the preparation of a simplified version of the CCD in the commonly used language in Mauritania and its wide distribution to the public at large for awareness building; (ii) the preparation of an audio-visual documenting the DLDD issues and activities in the Maghreb and its wide broadcasting nationally and regionally to raise public awareness.

Regarding support to NGOs, the achievements included: (i) the establishment of a Maghreb NGOs network specialized in DLDD issues; and (ii) support to resource mobilization for two NGOs, one in Algeria and the other in Tunisia to rehabilitate two trans-boundary oasis (oasis of Hazoua in Tunisia and Oasis of El-Oued in Algeria)

Regarding knowledge and information sharing, the achievements included: (i) the design in partnership with SSO of information sharing system on desertification and environment for the Maghreb
countries (SCIDE-UMA); and (ii) the organization of a regional workshop in collaboration with SSO to validate the system.

Regarding mobilization of financial resources, the achievements included: (i) the design and the establishment in Mauritania of an environment financing fund with a window for combating desertification; and (ii) the organization of two regional workshops in Tunisia (one in Gabes and the other in Djerba) on resources mobilization and partnership building for DLDD.

Regarding harmonization of environmental policies, the achievements included: (i) the elaboration and approval of a Maghreb Charter on combating desertification; (ii) a decision by the Ministers of Environment of the dialogue countries 5+5 at the 26-27 April 2010 meeting in Algiers to adopt the SRAP-Maghreb as a framework for North-South and South-South cooperation between the Mediterranean countries on desertification and adaptation to climate changes.

1.3- Lessons learnt from the evaluation of SRAP-Maghreb 2000-2009

At the conceptual level: The main lessons are: (i) the SRAP-Maghreb 2000-2009 had very ambitious objectives compared to the available
financing opportunities; (ii) prepared and approved before the finalization of most of NAPs, the SRAP-Maghreb 2000-2009 had been insufficiently anchored in the NAPs to ensure its full internalization, joint financing and implementation by the countries.

**At the operational level:** The main lessons are: (i) the concretization of the interventions included in the SRAP had been heavily dependent on external financing that did not materialize at the expected level; (ii) the lack of co-financing the SRAP by the UMA countries had been a major constraint; (iii) the modest institutional strengthening of the UMA General Secretariat has been beneficial for the implementation of the SRAP but remained insufficient compared to the demanding task; (iv) while relevant, the trans-boundary projects such as the establishment of a regional network for monitoring trans-boundary ecosystems and the concerted management of shared underground water resources proved to be difficult to implement in an effective manner due to the lack of appropriate institutional and financing mechanisms.
1.4- Recommendations for the preparation of SRAP-Maghreb 2011-2020

At the conceptual level, it is recommended that the SRAP-Maghreb 2011-2020 should: (i) focus on interventions of shared interest included in respective NAPs; and (ii) build on and complement the NAPs. In this context, the SRAP should include horizontal activities such as capacity building, elaboration of prospective studies to help the sub-region access knowledge and global information relevant to DLDD.

At the operational level, it is recommended that: (i) the SRAP 2011-2020 should consolidate the achievements of the previous SRAP such as the revitalization of the existing coordination mechanisms that were not very operational with focus for activating the use of the SCIDE-UMA considered as a powerful instrument for knowledge sharing. The SCIDE-UMA network is currently insufficiently utilized (ii) the governments of the UMA countries should mobilize internal co-financing to implement the core activities of the SRAP and to leverage additional funding from donors; (iii) the best practices having a rapid impact on combating DLDD should be documented and their transfer to farmers facilitated through the NAPs; (iv) prospective and strategic
studies on possible scenarios of climate change in the Maghreb sub-region should be conducted and their impact on DLDD analyzed by ecological zone; (v) a joint research agenda for the Maghreb region on adaptation to climate change in the affected areas is to be developed and a sub-regional research fund for its financing created; (vi) studies on the economic and environmental long term return on investments in combating DLDD are to be conducted. (iv) A sub-regional approach for monitoring and impact assessment is to be developed and implemented along with the establishment of a sub-regional early warning system on climate change, drought and natural calamities.
II. CONTEXT OF THE FORMULATION OF THE SRAP-MAGHREB 2011-2020

2.1- Strategic Plan 2008-2018 of the CCD

Approved by decision 3/COP.8, the vision of this “Strategic Plan” is to put in place a global partnership for reversing and preventing desertification and land degradation and mitigating the effects of drought in affected areas. The goal to reduce poverty and achieve environmental sustainability. The specific objectives are: (i) improve the living conditions of affected populations; (ii) improve the conditions of the affected ecosystems; (iii) generate global benefits; and (iv) mobilize resources for the implementation of the CCD through partnerships involving national and international actors. The operational objectives to guide the selection of the actions to be taken by the CCD stakeholders and partners are:

- Advocacy, awareness raising and education of stakeholders to invest in the CCD
- Creation of an enabling framework to foster solutions for combating desertification
Serve as a platform for science, technology and knowledge pertinent to the CCD
Capacity building of affected countries
Resource mobilization and technology transfer

2.2- Objectives of the SRAP-Maghreb 2011-2020
The long term strategic objective would be to contribute to the sustainable development of natural resources, income improvement and food security of the rural poor in the affected areas by DLDD and climate changes in the Maghreb countries.

The concretization of this strategic objective would be achieved through the following specific objectives: (i) creation of an enabling institutional and policy environment for combating DLDD at local, national and sub-regional levels; (ii) adaptation to climate change (iii) valorization of the built in synergies between the three Rio environmental conventions; (iv) capacity building of stockholders in charge of CCD implementation; (v) support to research and technology transfer; (iv) development of North-South and South-South cooperation.
The objectives of the SRAP should be:
In conformity with the objectives of the Maghreb Chart for environmental protection and sustainable development calling for an efficient management of natural resources and a balanced socio-economic development for present and future generations.

Convergent with the following objectives of the agriculture strategic vision 2030 for the Maghreb countries: (i) improve farmers’ income and accelerate productivity increases; (ii) protect, improve and use sustainably natural resources and biodiversity; and (iii) promote a common agriculture policy.

Pertinent to the five operational objectives of the CCD 2008-2018 strategy.

2.3- Guiding principles of the SRAP 2011-2020
The interventions to be selected for the SRAP should respond to the following guiding principles and criteria: (i) address sub-regional shared concerns included in the NAPs and generate rapid and tangible impact; (ii) consolidate and upscale the achievements of the previous SRAP and build on existing institutions rather than creating new ones; (iii) take advantages of the synergies between the three Rio environmental conventions; (iv) complement on-going initiatives
relevant to sustainable management of natural resources; (v) have a federating role for concerted and common positioning of the Maghreb sub-region vis-à-vis global challenges and concerns; and (vi) be conducive to joint implementation by the UMA countries and generate sub-regional catalytic financing to leverage co-financing by development partners.
III. SUB-REGIONAL SUPPORTIVE PROJECTS AND PRIORITIES

Applying the six guiding principles and criteria listed in the previous paragraph, the priority interventions of the SRAP 2011-2020 are grouped into the following four sub-regional supportive projects. Each project contributes to the achievements of at least one of the five operational objectives of the 2008-2018 CCD strategy, and together, they contribute to the concretization of the SRAP and country NAPs.

3.1- Sub Regional Supportive Project no 1: Establishment of an enabling environment, awareness building and capacity strengthening for combating DLDD and adaptation to climate change.

Justification and objectives
Sustainable management of natural resources and concretization of the objectives of the three Rio environmental conventions is a collective responsibility that requires an enabling environment at country level to device efficient solutions for combating DDLD and adaptation to climate change. The current enabling environments in the Maghreb countries for the efficient implementation of the three Rio conventions
are constrained by a low level of awareness building and education of stakeholders and weak implementing institutions. The objectives of this sub-program would be to support the Maghreb countries to: (i) improve the enabling environments for combating DLDD and adaptation to climate change in a context of preparation of a second generation of NAPs; (ii) raise awareness and educate partners and groups relevant to the CCD; (iii) build the capacities of institutions and decisions makers.

**Project components**

**Component 1:** Support to the preparation of NAPs and their enabling environments

This component would assist the Maghreb Countries in the preparation of a second generation of NAPs to be aligned with the orientations of the CCD 2008-2018 Strategic Plan taking into consideration the new challenges resulting from climate changes, rising staple food prices and their impact on food security. The component includes the following major activities:

Review the results of respective NAPs with focus on the strengths and weaknesses of their enabling environments and integration in national development plans.
Develop operational mechanisms for mobilizing the synergies between the three Rio conventions on environment.

Taking into consideration the results of the above review and synergies between the three Rio conventions on environment, revise existing NAPs using a multi-sectoral approach and ensuring their convergence with the orientations of the CCD 2008-2018 Strategic Plan.

In collaboration with SSO through the SCIDE-UMA platform, organize: (i) a first sub-regional workshop to share respective lessons and results of the review and updating of NAPs; and (ii) periodic sub-regional thematic workshops on respective experiences of NAPs implementation.

**Component 2: Support to awareness building and education of stakeholders**

An enhanced awareness building and education of stakeholders on issues related to the three Rio conventions is a shared regional priority and a prerequisite for the success of NAPs implementation. This component aims at assisting the Maghreb countries in establishing permanent mechanisms to conduct awareness building and education campaigns of all relevant stakeholders to play a more efficient role in
combatting DDLD. The component includes the following major activities:
Identify and classify relevant CCD stakeholders and partners into interest groups and delineate their respective roles in addressing the issues pertinent to DLDD and adaptation to climate change.
Prepare and implement national programs for awareness building and education of the various categories of interest groups.
In collaboration with OSS through the SCIDE-UMA platform, organize (i) a first sub-regional workshop to share respective national experiences in awareness building and identify specific sub-regional sensitization interventions to be implemented in collaboration with the UMA Secretariat and; (ii) periodic sub-regional thematic workshops on awareness building and sensitization of stakeholders.

**Component 3: Support to capacity building**
The current institutional and technical capacities in the Maghreb countries for policy formulation, generation of innovative technologies and practices on DLDD and resource mobilization on a competitive basis are modest, unequal and do not cover all the required expertise for improved performance and effectiveness. The
need to strengthening those capacities is a shared priority by the Maghreb countries. This component aims at assisting the Maghreb countries to address the above gaps.

Among the training needs identified at the consultation workshop held from 19-21 May 2010 in Rabat, the following three areas are expressed as shared priorities to be addressed on a sub-regional basis: (i) preparation of concerted sub-regional positioning on strategic issues in the agendas of technical and scientific fora relevant to the governance and implementation of the three Rio conventions; (ii) advanced training on the preparation of quality concept notes and submissions to development partners to access donors’ competitive grant financing; and (iii) advanced training on the design of impact indicators on DLDD and methodologies of their measurement. This component includes the following major activities:

Assist the Maghreb countries to review the capacity of their institutions to implement NAPs in order to: (i) identify the gaps and areas for training; (ii) strengthen institutions with focus on their coherence, complementarities, delineation of roles and responsibilities, the options for their legal set up, organizational and governance structures.
On the basis of the above review, assist the countries in the preparation and implementation of national training programs and in the restructuring of existing institutions to improve their performance and efficiency in combating DLDD and adaptation to climate changes. Develop and finance the implementation of a joint sub-regional training program covering the shared priority areas listed above.

**Cost and financing.**

The total cost of this sub-regional project is estimated at 5.86 million USD of which 56 % is financed internally by the UMA countries mainly in kind and 44 % by development partners.

3.2-Sub Regional Supportive Project no 2: resource mobilization and transfer of technologies for combating DLDD and adaptation to climate change.

**Justification and objectives**

Among the lessons learnt from the evaluation of the previous SRAP-Maghreb, the following constraints proved to be particularly relevant to resource mobilization: (i) difficulties to mobilize sufficient resources particularly in the forms of competitive grants from development partners; (ii) lack of catalytic internal financing for the
SRAP to leverage external co-financing. Concerning the transfer of technologies to combat DLDD, the current extension approaches are outdated and did not yield the expected results mainly because they were not accompanied by enabling financial incentives to facilitate the adoption of technologies by poor farmers in affected areas. Therefore, there is a need to; (i) design and implement innovative resource mobilization mechanisms such as the integrated investment framework promoted by the Global Mechanism of the CCD and; (ii) device better extension approaches and incentive policies for farmers to adopt new practices to address DLDD.

The objectives of this supportive project would be to complement the ongoing efforts of the Maghreb-countries in: (i) the mobilization of financial resources and transfer of technologies at national, bilateral and multi-lateral levels to enhance investments in DLDD; and (ii) transfer of technologies and access to knowledge by the users of natural resources. The sub-program includes the following major activities:

In partnership with the GM, assist the Maghreb countries in the development of Integrated Investment Frameworks to facilitate resource mobilization for the CCD implementation.
Assist the Maghreb Countries in the preparation of convincing submissions to development partners to access competitive grant financing to combat DLDD.

Document available high impact good practices on combating DLDD and assist the Maghreb countries in the development of innovative and attractive extension approaches.

Develop sub-regional pilot projects to test innovative extension approaches integrating financial and or in kind incentives for farmers to adoption DLDD type technologies.

**Cost and financing.** Covering an implementation period of five years, the total cost of the project is 3.17 million USD, 58% of which would be financed from internal resources by the UMA countries and 42% to be mobilized on a grant basis from development partners.

3.3- Sub-Regional Supportive Project no 3: PROMOTION of scientific research and inventory of available technologies relevant to combating DLDD and conservation of natural resources.

**Justification and objectives**
The future of agriculture and sustainable natural resources in the Maghreb sub-region is in danger as a result of climate changes and
their effects on accelerating DLDD and productivity reduction. Research for development has the potential to generate new practices with particular relevance to adaptation to climate changes, productivity increases and production stabilization during the periods of recurrent droughts. Current investments on research on DLDD and adaptation to climate changes issues in the Maghreb countries are insufficient compared to the challenges being faced and need to be increased. Given that the five Maghreb countries share the same food security objectives, water scarcity and environmental challenges, partnerships among them for co-financing and implementing joint research programs in a network mode would be beneficial for generating relevant and cost effective public research goods.

Building on the inventory of the current research capacities in the Maghreb countries undertaken in collaboration with SSO in the context of the 2000-2009 previous SRAP, the objective of this sub-program would be to promote sub-regional collaborative scientific research on DLDD and adaptation to climate changes. The sub-program includes the following major activities:
Consolidate the initiative of the previous SRAP on the competitive annual research award for the best research result in the Maghreb countries relevant to DLDD and adaptation to climate change.

Document the available research results and knowledge on DLDD and sustainable management of natural resources and share them with users to facilitate their adoption.

Develop, finance and implement jointly in a network mode, a sub-regional research program on combating DLDD and adaptation to climate changes in the Maghreb countries. The research themes should be strategic and pertinent to food security, conservation of natural resources.

Undertake a prospective study on the economic, social and environmental return of long term investments for combating DLDD and rural poverty alleviation in affected areas.

**Cost and financing**

Covering an implementation period of five years, the total cost of the program is 3.62 million USD 57 % of which would be financed from internal resources by the UMA countries and 43 % to be mobilized on a grant basis from development partners.
3.4- Sub-Regional Supportive Project no 4: ESTABLISHMENT of an early warning system for drought management, monitoring and impact evaluation of combating desertification

*Justification and objective*

Drought occurrence became a structural phenomenon in the Maghreb countries. The areas vulnerable to droughts need to be characterized and monitored through regular gathering of pertinent data and measurement of impact indicators. Therefore, the early warning system for drought is an essential element of an efficient risk management strategy based on proactive interventions in addition to reactive responses. The *Objective* of this sub-program would be to consolidate the achievements of the previous SRAP and equip the Maghreb sub-region with an efficient and synergetic early warning system for drought to manage and reduce its negative impacts on natural resources and people and monitor the state of the environment.

The sub-program includes the following *major activities:*

For the early warning system components the major activities are:
Mobilization and capacity strengthening of national partner’s institutions involved in data collection and dissemination of results.
Vulnerability analysis of drought and generation of warning indicators
Production of operational bulletins on early warning and their dissemination to users
Identification of adaptation strategies and measures to mitigate the impact of drought
Integration of adaptation measures to drought in the development policies of the Maghreb countries.

For the monitoring and impact measurement, the main activities are:
The development of a sub regional approach on monitoring and impact measurement taking into consideration the achievements of the previous SRAP (ROSELT network)

♦ Selection of impact domains and impact pathways relevant to environmental and living conditions in the Maghreb region
♦ Selection of measurable impact indicators applicable to the above domains and impact pathways
♦ Development of a simple and reliable methodology for qualitative and quantitative measurement of the selected impact indicators
Dissemination and sharing of the findings of monitoring and impact measurement system through the SCIDE-UMA network

**Cost and financing.** Covering an implementation period of five years, the total cost of the project is 2.87 million USD, 39% of which would be financed from internal resources by the UMA countries and 61% to be mobilized on a grant basis from development partners.

### 3.5- Summary of Cost and financing of the SRAP

The total cost of the SRAP-Maghreb 2011-2020 amounts to 15.52 million USD, 54% of which would be financed by the governments of the Maghreb countries and 46% by development partners on a grant basis. The cost estimation includes a cumulative 20% overhead fee on the base cost in cash for regional coordination by the lead implementation institutions as well as administrative and financial management by the UMA General Secretariat.
<table>
<thead>
<tr>
<th>SUB REGIONAL SUPPORTIVE PROJECTS</th>
<th>Contribution of UMA Countries</th>
<th>Resources to be mobilized (grants)</th>
<th>Total (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUB REGIONAL SUPPORTIVE PROJECT NO 1: ESTABLISHMENT OF AN ENABLING ENVIRONMENT, AWARENESS BUILDING AND Capacity strengthening for combating DLDD and adaptation to climate change</strong></td>
<td>3280000</td>
<td>2580000</td>
<td>5860000</td>
</tr>
<tr>
<td><strong>SUB REGIONAL SUPPORTIVE PROJECT NO 2: RESOURCE MOBILIZATION AND TRANSFER OF TECHNOLOGIES FOR COMBATING DLDD AND ADAPTATION TO CLIMATE CHANGE.</strong></td>
<td>1850000</td>
<td>1320000</td>
<td>3170000</td>
</tr>
<tr>
<td><strong>SUB-REGIONAL SUPPORTIVE PROJECT NO 3: PROMOTION OF SCIENTIFIC RESEARCH AND INVENTORY OF AVAILABLE TECHNOLOGIES RELEVANT TO COMBATING DLDD AND CONSERVATION OF NATURAL RESOURCES.</strong></td>
<td>2060000</td>
<td>1560000</td>
<td>3620000</td>
</tr>
<tr>
<td><strong>SUB-REGIONAL SUPPORTIVE PROJECT NO 4: ESTABLISHMENT OF AN EARLY WARNING SYSTEM FOR DROUGHT MANAGEMENT, MONITORING AND IMPACT EVALUATION OF COMBATING DESERTIFICATION</strong></td>
<td>1130000</td>
<td>1740000</td>
<td>2870000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>8320000</td>
<td>7200000</td>
<td>15520000</td>
</tr>
</tbody>
</table>
IV. PARTNERSHIPS FOR SUPPORTING THE SRAP INTERVENTIONS

**UMA and Civil Society.** In relation to civil society, the strategy of the SRAP-Maghreb 2011-2020 would be to strengthen the Maghreb NGOs Network established with support from the GM in the context of the previous SRAP. The active members of the network would be involved in the SRAP implementation and supported in their efforts to mobilize resources to finance specific activities at the national and sub-regional levels.

**UMA and the Mediterranean region.** The SRAP 2011-2020 would serve as a platform between the Maghreb countries and the economic groupings around the Mediterranean for partnerships development in the context of the ongoing cooperation on shared concerns related to environment, natural resource management, rural development and poverty alleviation. Partnerships would include North-South scientific cooperation with the European Commission research programs (FP7) relevant to combating desertification. Article 10 of Annex IV of CCD on Northern Mediterranean sub-regional and regional programs offer another platform for collaboration with the Maghreb countries.
**UMA and West Africa.** The Maghreb and the West Africa Sub-Saharan countries expressed continuous interest to cooperate in the CCD framework. In the context of their respective SRAPs, the two sub-regions would cooperate through the CDEAO, the CILSS and SolArid programs.

**UMA and Africa.** In the context of the SRAP 2010-2020, the UMA General Secretariat would consolidate the partnerships established in 2003: (i) with the NEPAD initiative for the formulation of regional investment projects for combating desertification and sustainable management of natural resources such as the green belt in the Maghreb countries; and (ii) with the CCD action program (RAP Africa) for the establishment of management of regional thematic networks.

**UMA and South-South cooperation.** The SRAP 2011-2020 would serve as a platform for the UMA General Secretariat to promote in collaboration with the GM, a South-South cooperation for combating DDLD between the Maghreb countries and other regions, particularly the Near East and Latin America. The cooperation would focus on knowledge sharing and technology transfer.
V. IMPLEMENTATION MECHANISMS, MONITORING AND EVALUATION OF SRAP-MAGHREB 2011-2020

The institutional mechanisms put in place for the implementation of the previous SRAP would be maintained and strengthened by the SRAP-Maghreb 2011-2020. The Technical Coordination Unit of the UMA General Secretariat would perform a central coordinating role to facilitate the implementation of the SRAP jointly by the NAPs implementation structures in respective countries. The General Secretariat would be directly in charge of (i) the preparation in collaboration with the CCD national focal points of grant financing requests, their submission to donors and the monitoring of their outcomes; and (ii) the financial management of the grants including the preparation and submission to donors progress and completion reports on the use of funds.

The implementation partners would include national (government and semi-public and private), regional and international structures, civil
society organizations and development partners. The concerned government structures include the ministerial departments having a role in the management and the governance of natural resources (land, water, forest, crops and livestock; energy etc.). The Ministry in charge of the environment in each country would perform the lead implementation role.

♦ **Organizational approach.**

The role of the UMA General Secretariat is principally of facilitation, coordination, monitoring and evaluation, resource mobilization and financial management of grants vis a vis donors. The technical management responsibility is entrusted to national institutions working in a network mode. A regional technical coordination and monitoring of the quality of the work is required. It is proposed that this role for each program or a combination of components of more than a program is assigned to a lead national or regional institution to be selected on the basis of comparative advantages through a call for proposals. The selected institution would appoint a program leader to spearhead the team work.
♦ **Oversight of the SRAP implementation.**

The two instances put in place in the context of the previous SRAP namely the Maghreb Committee for the CCD and the Maghreb Committee for research would perform the oversight role during implementation particularly in relation to monitoring work quality and impact.

♦ **Resource mobilization.**

To ensure a successful SRAP implementation, adequate financial, human and logistic resources need to be mobilized on time along with a smooth flow of funds. Governments should make financial provisions through their respective NAPs for co-financing the SRAP.

♦ **Monitoring and evaluation.**

The monitoring and evaluation in the context of the SRAP aims to provide answers to the following questions:
- To what extent the coordination mechanisms for the smooth and timely implementation of the SRAP are appropriate and effective?
- To what extent the activities undertaken produced the expected results on the basis of the performance indicators set for each program?
The monitoring and evaluation responsibility of the SRAP would be entrusted to the Technical Coordination Unit within the UMA General Secretariat with support from the Maghreb Committee for combating desertification, environment and sustainable development.