



# PROGRAM FRAMEWORK DOCUMENT (PFD)

TYPE OF TRUST FUND: GEFTF

TYPE OF AGENCY: QUALIFYING GEF AGENCY

## PART I: PROGRAM IDENTIFICATION

|                             |                                                                                                                      |                              |              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|
| Program Title:              | Lake Chad Basin Regional Program for the Conservation and sustainable use of natural resources and energy efficiency |                              |              |
| Country(ies):               | Cameroon, Chad, Nigeria, Niger<br>Central Africa Republic                                                            | GEF Program ID: <sup>1</sup> |              |
| Lead GEF Agency:            | AfDB                                                                                                                 | GEF Agency Program ID:       | P-Z1-CZ0-001 |
| Other GEF Agenc(ies):       |                                                                                                                      | Submission Date:             | 2012-05-23   |
| Other Executing Partner(s): |                                                                                                                      | Program Duration(Months)     | 60           |
| GEF Focal Area (s):         | Mutifocal                                                                                                            | Agency Fee (\$):             | 1,625,049    |

### A. FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

| Focal Area Objectives | Expected FA Outcomes                                                                                                                                                                                                                                                                                                                                                         | Expected FA Outputs                                                                                                                                                                                                                                                                                                                                                                                                                       | Type of Trust Fund | Indicative Financing (\$) | Indicative Cofinancing (\$) |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------|-----------------------------|
| IW-1                  | <p><i>Shared Knowledge-based Investments contributing to sustainable use and maintenance of ecosystem services undertaken</i></p> <p><b>Outcome 1.1:</b> Implementation of agreed Strategic Action Programs (SAPs) incorporates trans-boundary IWRM principles (including environment and groundwater) and policy/ legal/institutional reforms into national/local plans</p> | <p><b>Output IW-1-1-1</b> Reinforcement of national and watershed bodies – structural and legal</p> <p><b>Output IW-1.1.2</b> Data is collected and Knowledge shared</p> <p><i>Data collected and shared</i></p> <p><b>Output IW-1.1.3</b> Types of technologies and measures implemented in local demonstrations and investments (wetlands, forestry, land, etc)</p> <p><i>Knowledge based Investments undertaken at local level</i></p> | GEFTF              | 5,972,685                 | 30,150,000                  |
| BD-2                  | <p><i>Sustainable management of Wetlands</i></p> <p><b>Outcome 2.1:</b> Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation.</p>                                                                                                                                                                                               | <p><b>Output BD- 2.1.1</b> National and sub-national land-use plans that incorporate biodiversity and ecosystem services valuation.</p> <p><b>Output BD- 2.1.2</b> Local demonstrations and investments implemented at local level mainly in wetlands ecosystems</p>                                                                                                                                                                      | GEFTF              | 1,744,425                 | 23,390,000                  |
| LD-1                  | <p><i>Sustainable agriculture development at local/community level</i></p> <p><b>Outcome 1.2:</b> Improved agricultural management</p>                                                                                                                                                                                                                                       | <p><b>Output LD- 1.2.1</b> Types of Innovative SL/WM practices introduced at field level.</p> <p><i>Increased land area with sustained productivity and reduced vulnerability of</i></p>                                                                                                                                                                                                                                                  | GEFTF              | 2,169,682                 | 38,652,500                  |

<sup>1</sup> Program ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to GEF-5 Template Reference Guide posted on the GEF website for description of the FA Results Framework when filling in Table A.

|                                      |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                          |       |                   |                    |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|--------------------|
|                                      |                                                                                                                                                                                                                                                      | <i>communities to climate variability</i>                                                                                                                                                                                                                                                                                                                                |       |                   |                    |
| LD-2                                 | <i>Sustainable Dryland forest management</i><br><br><b>Outcome 2.2:</b> Improved forest management in drylands                                                                                                                                       | <b>Output LD-2.2.1</b> Types of innovative SFM practices introduced at field level<br><i>Increased land area under sustainable forest management practices</i><br><b>Output LD-2.2.2</b> Suitable SFM interventions to increase/maintain natural forest cover in dryland production landscapes<br><i>Increased quantity and quality of forests in dryland ecosystems</i> | GEFTF | 1,596,887         | 22,087,100         |
| LD-3                                 | <i>Investment to ensure sustainable landscaping in a IWRM context: including agriculture, wetlands, livestock, micro-energy production and forest management</i><br><br><b>Outcome 3.3:</b> Increased investments in integrated landscape management | <b>Output LD-3.3.1</b> Integrated landscaped management plans developed and implemented<br><br><b>Output LD-3.3.2</b> Information on INRM technologies and good practice guidelines disseminated                                                                                                                                                                         | GEFTF | 867,873           | 16,565,400         |
| CCM-3                                | <i>Investment to ensure sustainable energy in a sustainable landscape context (energy for agro-services)</i><br><br><b>Outcome 3.2:</b> Investment in renewable energy technologies increased                                                        | <b>Output CCM-3.2:</b> Renewable energy capacity installed with improved efficiency                                                                                                                                                                                                                                                                                      | GEFTF | 3,966,182         | 14,470,000         |
| SFM-1                                | <i>Sustainable management of forest</i><br><b>Outcome 1.2:</b> Good management practices developed and applied in existing forests.                                                                                                                  | <b>Output SFM- 1.2.1</b> Frontiers between agricultural, livestock land and forest land defined (GIS map).<br><b>Output SFM- 1.2.2</b> Forest conserved and managed<br><br><i>Forest managed and conserved</i>                                                                                                                                                           | GEFTF | 2,979,696         | 18,620,000         |
| Subtotal:                            |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                          |       | 19,297,430        | 163,935,000        |
| Program Management Cost <sup>3</sup> |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                          |       | 1,015,654         | 8,628,158          |
| <b>Total Program Costs</b>           |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                          |       | <b>20,313,084</b> | <b>172,563,158</b> |

<sup>3</sup> This is the cost associated with the unit executing the project on the ground and could be financed out of trust fund or co-financing sources.

**B. PROGRAM RESULT FRAMEWORK**

| <b>Program Goal:</b><br><b>The goal of the program is to maintain the ecosystem services in the Lake Chad Basin by conserving the water and agro-sylvo ecosystems and ensuring the sustainability of use of resources in a context of energy efficiency and food security</b> |            |                                                                                                                                                                                                                           |                                                                                                                                                          |                    |                           |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------|-----------------------------|
| Program Component                                                                                                                                                                                                                                                             | Grant Type | Expected Outcomes                                                                                                                                                                                                         | Expected Outputs                                                                                                                                         | Type of Trust Fund | Indicative Financing (\$) | Indicative Cofinancing (\$) |
| Increase <b>efficiency</b> of approaches and tools related to the consumption of Natural Resources and Energy to bring GEBs                                                                                                                                                   | Inv        | Approaches and tools are developed and implemented to produce GEB<br><br>Replicability of demonstrative actions and sustainability of investments is reinforced<br><br>Farmers and officers are trained in new techniques | <b>Agriculture</b> Innovative SL/WM practices introduced at field level.                                                                                 | GEFTF<br>LD-1.2.1  | 433,936                   | 7,730,500                   |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | <b>Dryland Forest</b> Information on SFM technologies and good practice guidelines disseminated                                                          | LD-2.2.1           | 216,969                   | 3,000,965                   |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | <b>NRM:</b> Good practice guidelines disseminated                                                                                                        | LD-3.3.2           | 433,936                   | 8,282,700                   |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | <b>Energy :</b> Dissemination on the use and capacity building related to renewable energy technologies                                                  | CCM3.1             | 494,688                   | 1,804,792                   |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | <b>Forest Management</b> Guidelines are developed and tested                                                                                             | SFM1.2.1           | 376,078                   | 2,350,095                   |
| Incorporate <b>sustainability</b> in productive landscape                                                                                                                                                                                                                     | Inv        | Sustainable Investments –demonstration actions<br>- contributing to sustainable use and maintenance of ecosystem services undertaken                                                                                      | - Local demonstration and investment in <b>wetlands</b> ecosystems(Restored habitat, wetlands)                                                           | GEFTF<br>IW-1.1.3  | 3,289,956                 | 16,607,633                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | - Reforestation and regeneration of <b>dryland forest</b>                                                                                                | BD-2.1.2           | 1,301,810                 | 17,455,224                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | - <b>Land management</b> demonstration actions are introduced in agriculture productive areas ( Stress Reduction Measure: improved irrigation measures). | LD-2.2.1           | 512,045                   | 7,082,277                   |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | - <b>Aquaculture</b> and <b>Fishing</b> existing facilities are improved to increase water quality and conserve ecosystems                               | LD-1.2.1           | 1,735,746                 | 30,922,000                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | (Stress Reduction Measure: Reduced fishing pressures)                                                                                                    | LD-2.2.2           | 867,873                   | 12,003,859                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | - Sustained productivity of <b>agriculture</b> land and reduced vulnerability                                                                            | CCM3.2             | 3,471,494                 | 12,665,208                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | - Renewable <b>energy</b> systems are installed for productive purposes - mainly agricultural                                                            | SFM1.2.2           | 2,169,682                 | 13,558,254                  |
|                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                           | -Households incorporating renewable energy alternatives to traditional approaches (number by                                                             |                    |                           |                             |

|                                                                                                                                            |     |                                                                                                                                                  |                                                                                                                                                                                                                                       |                              |                   |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------------------|
|                                                                                                                                            |     |                                                                                                                                                  | country)<br>-Households receiving advisory services on renewable energy alternatives to traditional approaches (number by gender)<br><b>Reforestation and natural regeneration</b> for fuelwood and livestock fodder.                 |                              |                   |                            |
| .Strengthening capacity and knowledge and sustainable financing for climate resilient mobilization for IWRM and WUE in the Lake Chad basin | Inv | Lake Chad riparian countries engaged in information sharing about water resources utilization                                                    | Status in water resources uses and detailed information in surface and ground water<br>.                                                                                                                                              | <b>GEFTF</b><br><br>IW-1.1.2 | 1,279,861         | 6,460,714<br><br>2,153,571 |
|                                                                                                                                            | TA  | Database management expertise improved and knowledge shared                                                                                      | Training in database management (data collection techniques and standardization)                                                                                                                                                      |                              | 426,620           |                            |
| Strengthening of water and ecosystems management and riparian collaboration                                                                | TA  | Reinforcement of national and watershed bodies – structure, legal aspects and capacity development                                               | National bodies and LCBC are reinforced<br>Exchanges and coordination improved                                                                                                                                                        | IW-1.1                       | 976,248           | 4,928,081                  |
|                                                                                                                                            |     | IWRM-Landscape LCBC and riparian countries has capacity and skills to implement local and trans boundary water and landscape management measures | Watershed and Integrated landscape management plans developed and implemented .<br>All LC Basin Communities have increased awareness of the role of LCBC and appreciate the inter-linkages and interdependencies in their landscapes. | <b>GEFTF</b><br><br>LD-3.3.1 | 433,937           | 8,282,700                  |
|                                                                                                                                            |     | Sustainable management of Wetlands                                                                                                               | Land-use plans that incorporate biodiversity and ecosystem services valuation developed and adopted.                                                                                                                                  | BD-2.1.1                     | 442,615           | 5,934,776                  |
|                                                                                                                                            |     | Sustainable management of Forests                                                                                                                | Sustainable Forestry plans including pressures sources (domestic, livestock , trade, forest defined                                                                                                                                   | SFM1.2.2                     | 433,936           | 2,711,651                  |
| Subtotal:                                                                                                                                  |     |                                                                                                                                                  |                                                                                                                                                                                                                                       |                              | 19,297,430        | 163,935,000                |
| Program Management Cost <sup>4</sup>                                                                                                       |     |                                                                                                                                                  |                                                                                                                                                                                                                                       |                              | 1,015,654         | 8,628,158                  |
| <b>Total Program Costs</b>                                                                                                                 |     |                                                                                                                                                  |                                                                                                                                                                                                                                       |                              | <b>20,313,084</b> | <b>172,563,158</b>         |

<sup>4</sup> Same as footnote #3.

**C. INDICATIVE CO-FINANCING FOR THE PROGRAM BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

| Sources of Co-financing   | Name of Co-financier (if known)                      | Type of Cofinancing | Amount (\$)        |
|---------------------------|------------------------------------------------------|---------------------|--------------------|
| GEF Agency                | African Development Bank                             | Soft loan           | 146,563,158        |
| Bilateral Aid Agency      | GIZ - Deutsche Gesellschaft für Internationale       | Grant               | 1,500,000          |
| Others                    | German Institute of Geoscience and Natural Resources | Soft Loan           | 500,000            |
| Other Multilateral Agency | European union                                       | Grant               | 2,500,000          |
| Other Multilateral Agency | Islamic Development Bank                             | Soft Loan           | 15,000,000         |
| National government       | Nigeria                                              | Grant               | 5,000,000          |
| Others                    | LCBC (Countries)                                     | In-Kind             | 900,000            |
| Others                    | Beneficiaries                                        | In-Kind             | 600,000            |
| <b>Total Cofinancing</b>  |                                                      |                     | <b>172,563,158</b> |

**D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

| GEF Agency          | Type of Trust Fund | Focal Area                       | Country Name/Global | Program Amount (a) | Agency Fee (b) <sup>2</sup> | Total c=a+b       |
|---------------------|--------------------|----------------------------------|---------------------|--------------------|-----------------------------|-------------------|
| AfDB                | GEFTF              | Land degradation                 | Cameroon            | 1,479,952          | 118,396                     | 1,598,348         |
| AfDB                | GEFTF              | Biodiversity                     | Chad                | 374,556            | 29,964                      | 404,520           |
| AfDB                | GEFTF              | Land degradation                 | Chad                | 200,981            | 16,078                      | 217,059           |
| AfDB                | GEFTF              | Climate Change                   | Chad                | 1,342,920          | 107,434                     | 1,450,354         |
| AfDB                | GEFTF              | SFM                              | Chad                | 639,485            | 51,159                      | 690,644           |
| AfDB                | GEFTF              | Biodiversity                     | CAR                 | 502,453            | 40,197                      | 542,650           |
| AfDB                | GEFTF              | Land degradation                 | CAR                 | 913,551            | 73,084                      | 986,635           |
| AfDB                | GEFTF              | Climate Change                   | CAR                 | 502,453            | 40,196                      | 542,649           |
| AfDB                | GEFTF              | SFM                              | CAR                 | 639,485            | 51,159                      | 690,644           |
| AfDB                | GEFTF              | Biodiversity                     | Niger               | 502,453            | 40,197                      | 542,650           |
| AfDB                | GEFTF              | Land degradation                 | Niger               | 1,461,681          | 116,935                     | 1,578,616         |
| AfDB                | GEFTF              | Climate Change                   | Niger               | 502,453            | 40,196                      | 542,649           |
| AfDB                | GEFTF              | SFM                              | Niger               | 822,195            | 65,776                      | 887,971           |
| AfDB                | GEFTF              | Biodiversity                     | Nigeria             | 456,775            | 36,542                      | 493,317           |
| AfDB                | GEFTF              | Land degradation                 | Nigeria             | 822,195            | 65,776                      | 887,971           |
| AfDB                | GEFTF              | Climate Change                   | Nigeria             | 1,827,102          | 146,168                     | 1,973,270         |
| AfDB                | GEFTF              | SFM                              | Nigeria             | 1,035,357          | 82,829                      | 1,118,186         |
| AfDB                | GEFTF              | International Water <sup>2</sup> | All countries       | 6,287,037          | 502,963                     | 6,790,000         |
| <b>TOTAL (US\$)</b> |                    |                                  |                     | <b>20,313,084</b>  | <b>1,625,049</b>            | <b>21,938,133</b> |

<sup>1</sup> In case of a single focal area, single country.

<sup>2</sup>-An amount 210000 US\$ is reserved for Project preparation

## **PART II: PROGRAMATIC JUSTIFICATION**

### **A. GOAL OF THE PROGRAM:**

The goal of the program is to conserve the water and agro-sylvo ecosystems of Lake Chad Basin through improved governance and integrated ecosystem management to ensure the sustainability of the resources and improved food security and water quantity and quality.

The goal of the program is to maintain the ecosystem services in the Lake Chad Basin by conserving the water and agro-sylvo ecosystems and ensuring the sustainability of use of resources in a context of energy efficiency and food security? (As provided in the table above)

### **B. DESCRIPTION OF THE CONSISTENCY OF THE PROGRAM WITH:**

#### **B.1.1 The [GEF/LDCF/SCCF focal area strategies](#):**

- The program will mainly be focused in the International Water GEF Focal Area but will also cover the land degradation, climate change and biodiversity focal areas as well as SFM.
- The long term goal of the **International Waters (IW)** focal area is the promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services. This program will contribute to this goal through relevant investments in the agriculture, wetlands, forestry sectors in a sustainable manner guaranteed by knowledge creation on the links and interdependency between water users (agriculture – surface and groundwater, biodiversity needs and energy uses), climate variability and change and livelihoods needs that will be shared between the riparian countries through the adequate national bodies coordinated by LCBC.
- These investments will be selected taking into consideration agreed frameworks and the SAP on the transboundary water management, ensuring the sustainable use of water resources and sustaining ecosystem services at community level through the adoption of improved practices in water management, agriculture production and fisheries.

The goal of the **biodiversity** focal area is conservation and sustainable use of biodiversity and the maintenance of ecosystem goods and services. The implementation of the Lake Chad regional program particularly the demonstration sites for the restoration of wetlands and improved fodder, crop and fish production and management activities will ensure that biodiversity is conserved in the wetlands that are identified as RAMSAR sites and habitat is maintained in the national protected area systems within the basin countries. The management of those habitats (RAMSAR and forest) will be improved in order to achieve multiple environmental benefits as stated in the SFM goal. The program, through knowledge sharing, will mainstream biodiversity conservation and sustainable use of natural resources into production landscapes in the Lake Chad basin countries.

The goal of the **Land Degradation** focal area is to contribute to arresting and reversing current global trends in land degradation, specifically desertification and deforestation. The program will address the pressures on natural resources from competing users at the landscape scale, in this case the Lake Chad basin. In this regard INRM practice guidelines will be disseminated and landscape plans will be produced to ensure that the investment will have a comprehensive approach. Among competing users of the Lake Chad, the program, will promote improved agricultural management in co-financed and financed investments that will increase sustainable productivity in the agriculture, livestock and fisheries sectors. In addition to that, taking into consideration the level of degradation of the semi-arid and arid forest ecosystems in the Lake Chad basin, the promotion of innovative SFM, reforestation and fodder establishment will ensure sustained productivity of agro-ecosystems and forest landscapes in support of livelihoods.

Reducing this pressure and **forest** degradation will be further promoted by developing decision-making tools (mapping, biodiversity, forest uses), that will allow selective promotion of large-scale SFM practices and regeneration/ erosion control activities using vegetation cover.

In complement to the focal areas outlined above, the Lake Chad program will also promote the demonstration, deployment, and transfer of innovative low-carbon technologies through the use of **renewable energies** particularly in the existing fish infrastructures and agriculture productivity and promote transfer and adoption of adaptation technology. Renewable energy technologies such as solar pumping, small hydro and biomass will be used to pump water, power processing and storage facilities. The program will improve crop yields by applying sustainable agriculture production methods mainly focused in improving water use efficiency – using for instance sustainable drip irrigation - in existing irrigation systems.. Increased tree coverage from the forest regeneration will support fuel wood supply and soil conservation. Production of livestock fodder through reforestation and natural regeneration where possible will also help in reducing pressure on natural resources by reducing overgrazing.

- In summary all these activities will increase production and will maintain or improve the flow of agro-ecosystem services sustaining the livelihoods of local communities and reduce pressures on natural resources from competing land uses at the Lake Chad basin level..

B.1.2. For programs funded from LDCF/SCCF: the LDCF/SCCF [eligibility criteria and priorities](#):

**B.2. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:**

The Transboundary Diagnostic Analysis, **TDA**, conducted by the previous Lake Chad funded project was completed at national and regional levels and has identified 3 overarching root causes of the transboundary problems caused by unsustainable resources use practices, i.e. (i) the absence of sustainable development on the political agendas of the riparian countries, (ii) low standards of environmental education and awareness, and (iii) population pressure analysis identified. The regional TDA identified seven priority regional environmental concerns, as follows:

(i) the variability of the hydrological regime and fresh water availability, (ii) water pollution, (iii) decreased viability of biological resources, (iv) the loss of biodiversity, (v) the loss and modification of ecosystems, (vi) sedimentation in rivers and water bodies, and (vii) the presence of invasive species.

Based on the findings of the TDA, a Strategic Action Program, **SAP**, was completed as a regional policy framework for the Lake Chad Basin. The LCBC SAP focuses on the collective interest to manage Lake Chad basin water resources sustainably to minimize water resource use conflicts. It estimates 36 million people have livelihoods dependent on Lake Chad. The current economic activities include fishing, crop production and livestock production. Production methods are generally poor with the result that the increasing population is resulting in degradation of the lake ecosystem. The LCBC SAP identifies five priority Ecosystem Quality and Water Resource (EQWRO) objectives;

1. Improved quantity and quality of water in the Lake Chad Basin.
2. Restoration, conservation and sustainable use of bio-resources in the Lake Chad Basin.
3. Conservation of Biodiversity in Lake Chad Basin.
4. Restoration and preservation of ecosystem resources in the Lake Chad Basin.
5. Strengthened participation and capacity of stakeholders and institutional and legal frameworks for environmental stewardship for Lake Chad Basin.

As indicated in the World Bank evaluation report of the GEF funded project “*the Project did not prepare the Action Plan for the SAP implementation. Missing components include*” :

- (i) estimated costs to achieve the identified EQWROs,
- (ii) an Investment Plan, and
- (iii) a strategy and financing mechanism.

The implementation of the SAP particularly the technologies and measures to be implemented in local demonstrations and investments for the restoration, conservation and preservation of the ecosystem resources will form the main elements of the Lake Chad basin program outlined in Table B. Each of the program components in Table B contributes directly to the SAP priorities.

In addition to the SAP respect, NAPA priorities are considered in the selection of demonstration actions. Here below a table summarizing the main NAPA priorities for Chad, Niger and RCA:

| NAPA Tchad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NAPA Niger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NAPA RCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>- <b>Control and water management;</b></li> <li>- <b>Development of intensive and diversified farming;</b></li> <li>- Implementation of the development, dissemination and sustainability of calendars cropping;</li> <li>- Information, Education, Communication on adaptation to climate change;</li> <li>- Completion of the works of protection and restoration of land for the development of agricultural activities;</li> <li>- Improved intercommunity pasture areas;</li> <li>- Improving seasonal forecasting of rainfall and surface water runoff;</li> <li>- Creation of a National Observatory of policies for adaptation to climate change;</li> <li>- Creation and dissemination of fodder banks;</li> <li>- Climate risk management.</li> </ul> | <ul style="list-style-type: none"> <li>- Introducing fodder crop species in pastoral areas;</li> <li>- Creating Livestock Food Banks;</li> <li>- <b>Restoring basins for crop irrigation;</b></li> <li>- Diversifying and Intensifying crop irrigation;</li> <li>- Promoting peri-urban market gardening and livestock farming;</li> <li>- Promoting income-generating activities and developing mutual benefit societies;</li> <li>- Water control;</li> <li>- Producing and disseminating meteorological data;</li> <li>- Creating Food Banks;</li> <li>- Contributing to fight against climate-related diseases;</li> <li>- Improving erosion control, water harvesting and conservation measures for agricultural, forestry and pastoral purpose;</li> <li>- Dissemination of animal and crop species that are most adapted to climatic conditions;</li> <li>- Watershed protection and rehabilitation of dum-off ponds;</li> <li>- Building of material, technical and organizational capacities of rural producers.</li> </ul> | <ul style="list-style-type: none"> <li>- <b>Mitigation of climate risk consequences on agricultural production and food security;</b></li> <li>- Seasonal disease prevention in rural areas;</li> <li>- Development and rational management of water resources in rural areas;</li> <li>- Prevention of forest degradation and management of forest resources;</li> <li>- Improved power distribution and connexion of villages through rural electrification;</li> <li>- Prevention of the consequences of abrupt climate change on populations (Early warning system for floods and drought increased).</li> </ul> |

Other priorities are indicated in other communications an assessments:

- For Niger, in the Second National Communication to the Climate Change Convention it's indicated as priority the reduction of fuel wood use and increased use of a diversified energy mix that includes fossil fuels and renewable energy
- For Chad, the Poverty Reduction Strategy Paper (PRSP) gives special attention to the Lake Chad and the Chari-Logone watershed and the legal and policy framework for restoring and regenerating natural ecosystems as a priority as well as the .transfer of some of the responsibility of natural resource management to communities.
- For Central Africa Republic, in the domain of climate change the National Communication indicate Improved agriculture and food security; improved forestry management and development of agroforestry; improved water resources management and increased energy access as four of the six priority sectors that are particularly vulnerable to the adverse effects of climate change
- For Nigeria the Increased use of renewable energy and improved energy use efficiency is prioritized in the National Communication to the UNFCCC and the Community participation in wetland rehabilitation and



improved fisheries management; improved forestry management and conservation of protected areas through management in the Biodiversity Conservation Strategy..

- For Cameroon, the Cameroon National Communication to the UNFCCC indicates as one of the priorities the Sustainable land uses through maintenance of vegetation cover.

So the Program is in line with priorities of national communication and assessments.

In addition to that the program falls within the scope of the priority areas of the national poverty reduction strategies (PRSP) of the Member States, i.e. Vision 2025 of the LCBC, which lays emphasis on the sustainable conservation of Lake Chad to ensure the security of the ecosystem resources which must be used equitably to satisfy the needs of the populations of the basin (food security context). It is in line with the SAP, which is a multidisciplinary integrated operation aimed at reversing the current ecosystem degradation trends in the Lake Chad basin and laying the groundwork for the sustainable management of natural resources.

### **C. Rationale of the program and description of strategic approach (including description of current barriers to achieve the stated objectives):**

The Lake Chad Basin Commission was formed as a way of coordinating conservation activities on and around the lake. Given the mandate of the LCBC and the foundation set by previous projects, such as the African Water Facility project approved by the Bank related to the preparation and dissemination of the Water Charter for the Lake Chad and the GEF funded activities in building some capacity and structures within the Commission including establishment of the Strategic Action Program are solid basis to undertake, with the baseline project infrastructure investment, and reinforce the sustainability and GEB aspects of the baseline project with the GEF funding. This project is therefore the logical next step in the sustainable development of the lake Chad.

This program is designed to promote sustainable solutions to identified problems. It aims at mitigating the threats to the stability of the ecosystems, the rehabilitation of degraded lands and the conservation and sustainable exploitation of the biodiversity. It will also contribute, through demonstration actions such as plant cover restoration measures, to reduce land degradation and boost carbon sequestration reserves. It will address the causes of soil impoverishment through participatory protection of source heads (notably in CAR) and banks. It will provide significant world ecological benefits through biodiversity restoration and increased fuel energy capital. The programme is a response to one of the serious problems facing the existence of Lake Chad, and is currently strongly supported by donors and all stakeholders. Its implementation will help to further harmonize the complementary interventions so as to reverse the accelerated degradation trends of the natural resources which is causing impoverishment of the populations.

The strategic approach is to implement a program consisting of projects that cover several focal areas based on the implementation of the priority areas in the LCBC SAP including water, bio-resources, ecosystems and the institutional framework. Each of these priority areas requires focused activities that can be implemented at sub-national, national and the regional levels. The programmatic approach will ensure that the outcomes from the projects are integrated leading to a greater impact at the regional level starting from the local level.

**Barriers** : the current barriers to achieve the outcomes of the program include the coordination at the central level to ensure activities are integrated to achieve the regional impact. The capacity at the local level will need to be strengthened to ensure each community contributes effectively to the common goal at regional level. Illustrating the importance of the local actions within the regional context will be important to provide incentives for the communities to realize the extent of their co-dependence. The awareness and appreciation of co-dependence and inter-linkages of the ecosystems and landscapes are also part of the barriers that the program seeks to overcome and ensure a holistic approach to maintenance of ecosystem services in the basin and sustained productivity of landscapes.

The more relevant barriers and risks to achieve development outcome presented in the conclusion and lessons learned of the “Completion and Results Report” of the GEF financed project on the “Reversal of land and water degradation trends in the lake Chad basin ecosystems project” are presented here below:

- *Inadequate project management caused delays in project implementation* : The lack of participation of LCBC staff, the lack of communication with LCBC's management and the lack of involvement of LCBC in project decisions have been outlined as inadequate project management. The mitigation measure to this barrier is that the projects will not only be based on LCBC capacities and staff but will also be executed by national bodies. The LCBC will coordinate but this role is enhanced at project preparation
- *Deficient M&E systems and lack of flexibility for restructuring the project* : The M&E put in place by the baseline project will be reinforced by the M&E tracking tools developed by GEF. In addition to that, the project will be supervised at least 1.5 times per year. The role of the African Development Bank field offices will be important in enhancing M&E aspects
- *Security situation caused difficulties with project staffing and implementation*: This is a major issue, that in the previous financed project had implications in deliverables, for instance Because of civil strife, the project was forced to suspend its business twice, the Lake Fitri pilot project in Chad was not completed, and the Upper Chari Basin pilot in CAR was not initiated. This barrier to achieve outcomes cannot be mitigated but the involvement of the population at earliest stage of the project will help to establish a more secured situation and a responsible situation vis-à-vis of the demonstration sites
- *Joint project implementation through two GEF implementation agencies* : The Completion and Results Report raises also the point and difficulties of two GEF implementation agencies. This has been addressed by submitting a program only implemented by AfDB that will be complementary to UNDP programs that will define additional aspects of the SAP action plan.

**Sustainability:** At the institutional level, the sustainability is ensured by (i) the ownership of the countries; the desire of the LCBC Member States and by the alignment with the Vision 2025 and the strategic Action Plan (SAP) of the LCBC. At the community level, the sustainability will be guaranteed by beneficiaries participation on the development and validation of management plans for fisheries, forests and land management as well as by the capacity development programs associated to on the ground activities (demonstrations actions and investment) and close dissemination of practices and guidelines The operational and maintenance risk is tackled by the simplicity of the infrastructures envisaged and the decentralized technical services. The reinforcement of LCBC coordination role and strengthening communication with the national bodies will ensure a sustainable regional collaboration It should be noted that the GEF funding has been requested to strength the environmental and sustainability of the project by creating guidelines, practices, demonstration sites etc. This coordination role is essential to ensure alignment between the proposed program and its baseline (PRODEBALT) with upcoming investments in the basin, for instance by UNDP and UNESCO.

**D. Discuss the added value of the program vis-à-vis a project approach (including cost effectiveness):**

The programmatic approach will facilitate the implementation of several projects that are inter-related given that each project involves more than one focal area. The Lake Chad programme seeks to address problems faced within the Basin and are therefore transboundary in nature as they extend over ecosystems beyond local and national boundaries. The approach at the river basin level entails the recognition of interrelated activities that have local and regional impact. The programmatic approach eliminates the repetition in the learning curve and the duplication of efforts from the Lake Chad Basin (LCB) countries. The programmatic approach enhances complementarity in projects: some focus on the collection of scientific data for biodiversity, groundwater and surface water resources while others will effectively make use of the scientific information and provide support to local communities for sustainable livelihood development and adaptation to climate change. Regional countries in the LCB recognize the importance of coordinated action to address the issues threatening their lake basin population. Building capacity at the regional level through the LCBC is a lower cost option for ensuring retention of skills and institutional memory. Individual countries often lack the resources to sustain a dedicated lake basin team of experts and regional effort is required to raise such resources. The program will deliver skills for common problems and be able to monitor results. If the activities were to be implemented as individual country initiatives there would be difficulty in creating noticeable impact for such an enormous problem and uneven skills development would not survive frequent migration of communities across frontiers.

The programmatic approach is considered to be more cost-effective than stand-alone projects due to economies of scale, reduced transaction costs and optimization of synergies between the projects. The projects in essence

contribute to specific identified common causes and problems for which a coordinated response can be monitored and measured. Duplication of activities can more easily be avoided if the projects are all part of one program. Implementation experiences and adopted best practices will also be shared between countries and between sub-regions in the same country. This will optimize the “learning curve” and therefore reduce cost.

#### E. Describe the baseline program and the problem that it seeks to address:

**Problematic:** The drastic shrinking of the surface area of Lake Chad, noted over the past decades, has led to the disruption of farmlands and a decrease in fish production. Indeed, the surface area of the lake has dropped from 25 000 to 2 500 km<sup>2</sup> over a period of 45 years and its depth from 6 m on average to less than 3 m at present. At the current rate of recession of the water body, the Lake could disappear about twenty years from now, according to certain climate forecasts of NASA. In the energy-related sector, the overexploitation of biomass fuels is one major driver of deterioration of the wetlands as catchment areas become degraded. Use of modern energy technologies would also increase productivity of agriculture whilst reducing production losses. Value of products such as fish would be increased by proper storage before marketing thereby increasing community incomes. The Lake Chad Basin Authority does not include energy information within its management information system, collection and analysis of energy information will help in designing appropriate policies especially land-use change and regional energy trading.

**Baselines:** The main baseline program is composed of (i) a series security or poverty reduction projects at the national level and (ii) Lake Chad basin Sustainable Development programme (PRODEBALT). The PRODEBALT is the main baseline in terms of baseline resources, 65 % and in terms of on-ground baseline investments.

The food security and poverty reduction projects are focused on rural infrastructure to increase agriculture production and natural resources management: Little attention is given to the aspects of land degradation, biodiversity and the use of renewable energies.

The PRODEBALT is a response to the declining flows and water quality, loss of biodiversity, water erosion and silting affecting Lake Chad and its entire basin. PRODEBALT is designed to reverse the degradation trends noted. It is consistent with the SAP and Vision 2025 of the LCBC for sustainable development of Lake Chad. PRODEBALT is based on SAP priority actions and are fully consistent with the strategic actions defined in the national policies and environmental management plans, which aim at sustainable economic growth to reduce poverty. Furthermore, the priority given by the governments to the preparation of Vision 2025 for the development of the Lake Chad basin shows their desire to focus their interventions on the integrated management of the shared natural resources and the promotion of regional co-operation and integration.

For the PRODEBALT baseline project the key activities and the components with the cost are presented in the table below:

| Components                                         | Cost (in mUS\$) | N° Components Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protection of Lake Chad and its basin              | 34              | <ul style="list-style-type: none"> <li>- Soil conservation and soil moisture conservation over 27000 ha and fixation of dunes over 8 000 ha</li> <li>- Regeneration of grazing-land ecosystems over 23000 ha</li> <li>- Control of invasive aquatic plants in water bodies</li> <li>- Conservation of the endangered Kouri cow species</li> <li>- Clearing-out of the Vrick channel over 15 km</li> <li>- Study and plan of optimal management of reservoirs and water supply points of the basin</li> </ul> |
| Adaptation of production systems to climate change | 49              | <ul style="list-style-type: none"> <li>- Extension of the piezometric observation network</li> <li>- Sustainable management of forestry, pasture and fishery resources :</li> <li>- Community forest plantations of 10 000 ha and 20 000 ha agro-forestry among farmers/graziers,</li> <li>- Restoration of 12000 ha classified forests,</li> <li>- - Demarcation of 1500 km transhumance corridors combined with 44 watering holes;</li> </ul>                                                              |

|                       |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |     | <ul style="list-style-type: none"> <li>- Rational exploitation of wood through indirect actions by popularizing the use of stoves (450 000),</li> <li>- Chorkor stoves (6000) and biogas digesters (200) on the basis of the 5 national wood supply master plans,</li> <li>- Construction of 15 landing quays with the related infrastructures</li> <li>- Establishment of local development funds to finance basic community infrastructure and 200 micro-projects for diversification and promotion of growth-oriented sectors (Arabic gum, spirulina, etc.)</li> <li>- Improvement of health through the distribution of 60 000 mosquito nets and the control of HIV/AIDS and waterborne diseases</li> </ul> |
| Institutional support | 7.4 | <ul style="list-style-type: none"> <li>- Improvement of stakeholder skills (15 300 officers, technicians, leaders of farmer organizations, including 40% women)</li> <li>- Building of LCBC institutional capacities, including strengthening of the Lake Basin Observatory</li> <li>- Conduct of studies and research, including preparation of the erosion and silting control master plan</li> <li>- Contribution to the final design of the project of transfer of the Oubangui waters to Lake Chad.</li> </ul>                                                                                                                                                                                             |
| Project Management    | 8.5 | <ul style="list-style-type: none"> <li>- The project will be carried out by 1 regional coordination unit within the LCBC and 5 national coordination units supported by the LCBC and the decentralized technical services of the States</li> <li>- Steering committees will be created at the regional and country levels.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |

**Key components of the PRODEBALT baseline project**

The Lake Chad programme would provide a platform for a more holistic approach and information sharing and exchange among the national and sub-national interventions areas particularly at the watershed level and provide opportunities for further reaching improved practices in agriculture production, rangeland management and ecosystem conservation. The agriculture productivity is increased by improving agriculture practices and technologies and reverse land degradation. The energy security will be provided by renewable energies technologies, specially, solar and biomass that will reduce the pressure in forest and other deteriorated ecosystems. The IW component will be able to bring the IWRM/TWRM needed in the baseline project by enhancing coordination, in addition to that Further, 1% of the IW funding will be going towards supporting IWLEARN activities, such as participation in the IW conference, writing IW Experience Notes, setting up a webpage in accordance with IWLEARN tool kit guidance as well as participation in regional IWLEARN meetings.

**F. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:**

- The activities proposed for GEF financing will build on the institutional level approach in the PRODEBALT through community level activities in the SAP implementation. The focus will be on up-stream communities that are not targeted in the baseline project. The activities will be aimed at building the capacity at community level for natural resources management including land, water, fish resources and wetlands to ensure sustainable livelihoods.
- The GEF incremental financing, whose activities are detailed in section B.1.1, will include:
- The promotion of transboundary water governance, water use efficiency and sustainable livelihood strategies

for riparian communities to improve the participatory water governance rules approved by riparian countries for the sustainability of Lake Chad and improve rural population livelihood to reduce poverty within natural ecosystems dependent population and sustainable use of the ecosystem services, natural and productive, by the communities. These activities will contribute to the SAP Implementation and the strengthening of national and local institutions.

- The incremental financing will also contribute to the preservation of ecosystems goods and services within the Lake Chad basin therefore strengthening the flow of ecosystems goods and services including conservation of wetlands, reducing vulnerability and increasing the adaptation capacity as well as technology transfer for improved energy efficiency.
- The Lake Chad Basin program will contribute to knowledge mobilisation for Wetland Biodiversity and Water Resources in the Lake Chad basin through the Ecological Surveys of terrestrial and aquatic Biodiversity resources (trees, wetland vegetation, birds, fish) in the wetland areas to provide baseline data for the NBSAPs and enhance the engagement of Lake Chad riparian countries in knowledge and information sharing regarding water resources utilisation and improved technologies.
- The Program will also enhance the monitoring of surface water quality and quantity and the exploration of ground water resources (in collaboration with UNESCO) to assess the ground water potential and recharge capacity of the aquifers including water quality and potential water uses to augment the surface water resources.

The components described above will all directly build on the activities being financed in the PRODEBALT and the projects in the LCB countries. GEF activities will not finance purely infrastructures but will be focused in improving existing facilities and enhancing land management, agriculture practices and community level forest management

In the case of the groundwater activities the LCBC Programme will go further by assessing the options for ground water recharge and the transfer between the surface and ground water that is not being financed in the PRODEBALT and is vital to the suitability of Lake Chad. Another key addition from the LCB program is the promotion of renewable energy in the fish production facilities, which will improve the resilience of the local communities, promote technology transfer and also enhance their income generation capacity. Another incremental activity from the LCB Program is the protection of wetlands through the separation of access for the livestock, this activity though considered important, could not be financed in the baseline projects due to lack of funds. Reducing livestock impact on the wetlands involves provision of water and feed outside the wetland. Use of ground water through pumping will enable livestock to access water without having to graze in the wetlands. Reforestation activities included in the baseline will enable production of animal feed and discourage direct grazing in the wetlands. The GEF incremental financing will be used to close this gap and illustrate the feasibility of this option in protecting wetlands and conserving biodiversity.

The transboundary nature of the Lake Chad Basin Programme requires the harmonization of management and scientific data collection approaches for water resources, biodiversity and transboundary ecosystem management in all the participating countries and identified agencies. However, the harmonization needs to be conducted at national and regional levels. The common and shared information, successful techniques and practices would reduce the transaction costs. The costs sharing will enhance the cooperation among countries and also reduce the financial burden on the individual countries. The programme will also result in further global environmental benefits such as the development of a sustainable management system for the wetland areas in the Lake Chad basin and the establishment of baseline data for biodiversity and water resources in the Basin with a community based approach. The activities proposed under the GEF programmatic approach build on the PRODEBALT, targeting particularly upstream communities whose activities have an impact on the Lake resources. The activities outlined below are incremental as they are not being financed in the baseline projects being implemented by the Bank at the national and regional level. Therefore without the incremental GEF financing they would not be undertaken and the global

environment benefits would not be realized. The PRODEBALT focuses on the regional and national levels while these activities will target capacities at community level. The similarity of the water and environmental problems faced amongst the communities Lake Chad Basin and their solidarity on these issues is a vital component to ensure existing regional political will and existing national policies are built upon in trans-national institutions and the wider civil society. In addition, it is not common for energy planning to be integrated in natural resource management. The proposed interventions will use renewable energy to increase productivity of agro-ecosystems. This will aid in increasing intensity of agriculture production and reducing poverty by enabling farmers to earn more from smaller farms. These activities are expected to decrease vulnerability and increase adaptation capacity of the local riparian communities in these countries.

**G. Describe the socioeconomic benefits to be delivered by the Program at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF).**

The programme will help to strengthen the capacities of local communities to assume responsibility for the control of silting and restoration of the agro-sylvopastoral potential. It will also help to improve the living conditions of the most disadvantaged populations, in particular, and to diversify their sources of income. The main benefits of the programme are as follows:

- *Biodiversity of global significance conserved:* Lake Chad basin is the second largest wetland in Africa, and hosts biodiversity of global significance. In addition to the fishery, the Basin contains other significant wildlife of regional and global importance such as gazelles, elephants, hippos, situngu and waterbuck, which also provide means of livelihood to millions of riparian communities . Lake Chad is also classified as an important bird area.
- *Ecosystems of global significance restored and conserved:* The richness of the Basin's floodplains supports a wide range of economic activities. Some wetlands within the Lake Chad, such as the Waza-Logone floodplain, Lac Fitri, River Sangha, Barombi Mbo Crater lake, and the Estuaire du Rio Del Rey and specific parts of the Lake in Tchad have been nominated under the Ramsar convention. These are critical habitats for biodiversity and provide various environmental goods and services to local, regional and global communities.
- *Sustainable Livelihood options and hence poverty reduction for over 20 million inhabitants:* Poverty reduction is still a global challenge among the millennium development goals and the interdependence of the global population is increasingly visible with the migration to resource rich areas. Lake Chad is Africa's fourth largest lake, the largest in Western and Central Africa, with over 20 million people relying on lake-based economic activities; this is expected to increase to 35 million by the year 2020. Current depletion trends of natural resources despite national and regional efforts to preserve them while promoting economic development suggest that none of the individual countries can independently afford the revitalisation of the associated ecosystems and their goods and services. This project will deliver sustainable livelihood options in order to reduce poverty among a part of the global population.
- *Improved availability of shared water resources.* Freshwater shortage has impacted heavily on the Basin's economic activities including the fisheries, agriculture, animal husbandry, fuel wood provision and wetland economic services. There has been consequential food insecurity in the region and this, combined with a lack of potable water, has had implications on the health status of the Basin's population. Social impacts of freshwater shortage have included upstream/downstream conflict over who has the right to use the diminishing water resources. Social tensions have also been further provoked by the increased pressure on resources due to the migration of people from the drought stricken northern regions of the Basin into areas surrounding the Lake and associated river basins.
- *Improved local and regional level food security.* This program will improve social conditions through water and biodiversity conservation and therefore increase food and energy security by stabilizing crop yields and

increasing fuelwood availability. Women often do most of the fuelwood collection, tending gardens and cooking and will therefore benefit more than men from the improvement of the systems of conservation, processing and marketing of agricultural and fishery products. The program will target women for much of the training on sustainable livelihood activities and will ensure that they are represented on local management and steering committees.

- *Increased solidarity among communities with shared boundaries.* Mobilization of transboundary communities to address a common problem will have the effect of reducing conflict and increasing solidarity. This project prepares the interested parties to make more critical decisions in the future like inter-basin water transfers.

## H. Justify the type of financing support provided with the GEF/LDCF/SCCF resources:

Funding support is sought from the GEF trust funds based on the transboundary nature of the Lake Chad basin and the need for a concerted effort to address the challenges being faced in conserving the water and ecosystems of the Basin while also ensuring food and energy security for the basin populations. In cognizance of the benefits that accrue from a concerted effort such as the environmental and social benefits outlined in section G above and the cost effectiveness of a regional approach, the five lake Chad basin countries will contribute part of their allocations from the Biodiversity, Climate Change and Land Degradation focal areas in the STAR allocations. The forestry activities incorporated in the program will require the selection of appropriate species and establishment or nurseries as well as training of communities in forest management. The funds for these activities are requested from the Sustainable Forest Management (SFM) resources. As Lake Chad is one of the priority regional water bodies funds are also requested from the International Waters trust fund. The integrated nature of the proposed program cutting across several focal areas and national boundaries provides rationale and justification for a broad based financing from International Waters, SFM and the STAR allocations.

## I. Indicate risks, including climate change risks that might prevent the program objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the program design:

The main identified risks are tabulated below.

| Critical Risks                                                              | Risk Level | Proposed Mitigation                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Climate change impacts at higher than anticipated levels                    | Low        | The region is likely to face more droughts and the project is flexible enough to function under drier conditions                                                                                                                                                         |
| Regional Institution is not sustained                                       | Low        | The projects rely on national action with LCBC playing a coordination role. Each country can coordinate own projects even though at a higher cost. Project will build capacity in LCBC and countries.                                                                    |
| Project overwhelms the available capacity and skills to an extent it fails. | Low        | Community based planning methods will be used to prioritize community priorities and allocate interventions with consent of communities                                                                                                                                  |
| Projects become source of conflict                                          | Medium     | Project will be established through a consultative process and all decisions are made with a bottom-up consultation where possible.                                                                                                                                      |
| Governments' commitment is not sustained                                    | Medium     | 1.1. Policy advocacy tools and approaches produced to reflect equitable economic benefit sharing among countries.<br>1.2. Multi-stakeholders dialogue platforms established to support political conditions and rapidly determine possible project implementation risks. |
| Vulnerability to changing                                                   | Medium     | 2.1. Adoption of "no-regrets" approaches in all IWRM;                                                                                                                                                                                                                    |

|                                                                                              |     |                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| environmental conditions                                                                     |     | 2.2. Promotion of integrated tools and approaches that mainstream adaptation to climate change;<br>2.3. Participatory monitoring and evaluation of climate parameters and adaptation options.                      |
| Limited capacity of stakeholders to implement IWRM best practices and transboundary policies | Low | 3.1. Provision of IWRM guidance coupled with specific training to empower stakeholders at both national and regional levels;<br>3.2. Promotion of strong linkage with on-going capacities development initiatives. |
| Lowering water table in the diminishing lake                                                 | Low | The water table status will be considered by piezometric measurement and water management technic will be put in place to reduce this risk to the lower levels                                                     |

In addition to the above risk mitigation measures, communication, participation and demand driven approaches have been strong elements during the program identification phase and will be continued throughout the project development and implementation phases to reduce risk through safeguarding interventions. Investment components will be closely monitored in a participatory manner and evaluated to enable early identification of risk elements and anticipate their occurrence.

**J. Outline the institutional structure of the program including coordination and monitoring & evaluation:**

The capacity building undertaken on previous Bank project, the experience of the national steering committees established under the main baseline projects is an evidence of the capacity of LCBC and national bodies to undertake the sub-projects. The Program will mainly be implemented through the Lake Chad Basin Commission with National Program Management Units guided by Steering Committees in each country.

At the watershed level will be associations formed to enhance the implementation as well as the monitoring and evaluation among the program beneficiaries. The associations will facilitate dissemination of practices and lessons learnt to the wider communities. In all cases the program will rely on existing community level and other structures set up by the current and previous projects and programs such as PRODEBALT. It is envisaged that energy sector entities such as utilities and utility regulators will be involved so as to design policy that encourages adoption of renewable energy and integration of energy planning in to wider resource planning. Therefore the institutional structure will be a regional level such as the LCBC, the watershed level through the associations, the national level such as the utilities and project implementation units and sub-regional level and community level using existing structures.

The program monitoring and evaluation at the regional level will be carried out by the LCBC Executive Secretariat through the Department of Planning, Monitoring and Implementation of Projects. Specific indicators based on a results framework from the program will be monitored and reported on, on a quarterly basis to assess the implementation and achievements of results. The national level monitoring and evaluation will be led by national coordinators and the monitoring and evaluation specialists that will be identified in each Country. They will define simple specific indicators of a technical and organizational nature for the national components, using the indicators featuring in the overall program results framework thus ensuring compatibility. The programme will also undergo external monitoring and evaluation annually by the supervisory Ministries of the Countries and the Basin Observatory which, from the baseline Lake Chad project (PRODEBALT).

The LCBC Executive Secretariat and the national coordinators will prepare quarterly progress reports, programmes and annual reports, annual budgets, as well as their implementation reports. In addition, the national Environment Departments will provide half-yearly environmental monitoring reports. As is the current practice with the baseline project, joint supervision and mid-term review missions in the 3rd year of the programme will be carried out by the Bank and the partners in order to make the necessary adjustments for achievement of the objectives and outputs at various levels. The programme will be closely monitored by the Bank Field offices in Cameroon, Nigeria and Chad. The LCBC Secretariat and national coordination units will prepare quarterly progress reports, programme and annual



reports, annual budgets, as well as their implementation reports. At the end of the programme, the Governments and LCBC will prepare a completion report.

At the level of implementation, the activities defined to achieve the expected outcomes and outputs will be undertaken at sub-project -or child project level-. In this regard, 6 projects are planned, one per country and one at the regional

The national projects will ensure that demonstration activities take place locally and the expected results are tangible are the national level, using the STAR allocation. The regional level will allow harmonization of data collection in the riparian countries, coordination of activities and ensure a comprehensive and coordinated IWRM approach, for the regional project the IW resources will be allocated.

A summary of the national projects as well as of the regional projects is introduced in Annex 4

**K. Identify key stakeholders involved in the program including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:**

The Lake Chad Basin Commission (LCBC), an Inter Governmental Agency, is responsible for the regulation and control of the utilization of water and other natural resources in the Basin. It is unable to implement IWRM projects alone however and needs to co-operation of the government agencies in each country responsible for water resources management. There are now five member countries: Chad, Niger, Nigeria, Cameroon, and Central African Republic. Different projects will be led by different stakeholders as discussed in a previous section. Other key stakeholders are IUCN, WWF, Universities and local NGOs and community groups and partners financing various development activities within the basin.

**L. Indicate the co-financing amount the GEF agency is bringing to the project:**

The main co-financing is sourced from the on-going PRODEBALT project that costs USD90 million in total. In addition the national projects being financed by the Bank that are included in the Annex provide a total sum of USD 132.5 million as co-financing. It should be noted that the projects used as the baseline are a mixture of on-going and pipeline projects that are under preparation. The on-going projects are beneficial in the provision of existing implementation agencies and structures within these agencies that minimize the need for creation of new structures or parallel structures to implement the various projects within the Lake Chad Basin Programme. The projects under preparation will ensure the continuity of the achievements and progress made in the ongoing projects and early integration of the activities proposed under the Lake Chad Basin programme.

**M. How does the program fit into the GEF Agency's program (reflected in documents such as UNDAF, CAS, etc.) and the Agency staff capacity in the country to follow up program implementation:**

The African Development Bank has several interventions in the Lake Chad Basin Countries as outlined in the Annex. These interventions are based on the Country Strategy papers that define the Bank's approach and rationale of the specific assistance offered to the Countries. The approach is normally based on two or three pillars that further elaborate on the Bank's support. The Country Strategies for Cameroon, Chad and Nigeria each have infrastructure development as one of the pillars. The infrastructure includes the development of rural facilities, improving access to them as well as to agriculture productive areas and developing infrastructure for increased agriculture productivity.. The environment is a cross cutting issue and thus is well articulated in both infrastructure and agricultural development. The Lake Chad Basin Programme will also complement the infrastructure development in the rural areas with a focus on agriculture production improvement through the activities on ecosystem service improvement in the rangelands and agriculture production areas. In addition the Bank is developing Regional Strategies for both Central and West Africa that includes the Lake Chad Basin countries. The pillars in the strategies include capacity building particularly aimed at enhancing regional integration. The Lake Chad Programme is aligned to the regional strategies through the capacity building activities particularly the implementation of the Strategic Action Plan and strengthening of the regional body for informed decision making. At the sector level the Banks Agriculture Sector Strategy has pillars for infrastructure development and renewable

natural resources management. The Lake Chad programme is fully aligned to the agriculture sector strategy that seeks to increase the under sustainable land management and improve water management with increased capacity for agriculture production. The programme will enhance the water management in the basin and also contribute to the increase in land being managed in a sustainable manner through its activities focusing on wetland conservation, rangeland management and increase water use efficiency.

The capacity of the projects implementation staff is adequate for some countries that has large experience with the implementation of similar projects with MDBs such as the World Bank and AfDB. At the regional level LCBC staff is reinforced to ensure the implementation of the regional project baseline. This capacity at the regional level but also at national level will continue to be enhanced. The availability of AfDB field offices will be an additional support to the implementing agencies. In terms of M&E the AfDB (i) monitors projects at least 1.5 times per year, including a mid-term supervision mission that allows to correct and address major issue, (ii) undertakes a PCR (project completion report) for all projects an evaluation can be undertaken by the Independent Evaluation department of AfDB.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the [Operational Focal Point endorsement letter \(for Qualifying GEF Agency\)](#) and [Operational Focal Point Endorsement letter \(for Program Coordination Agency\)](#) with this template.

| <b>NAME</b>                      | <b>POSITION</b>                                                   | <b>MINISTRY</b>                                                                                                    | <b>DATE (MM/dd/yyyy)</b> |
|----------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------|
| Mr. Justin NANTCHOU<br>NGOKO     | Director, Minister's<br>Cabinet<br>CAMEROON                       | <b>MINISTRY OF<br/>ENVIRONMENT AND<br/>NATURE<br/>PROTECTION</b>                                                   | 09/15/2011<br>email      |
| Mr. Gustave DOUNGOUBE            | Adviser<br>CRA                                                    | <b>MINISTRY OF<br/>WATER, FORESTRY,<br/>HUNTING, FISHERY<br/>AND ENVIRONMENT</b>                                   | 09/**/2011               |
| Mr. Gaourang MAMADI<br>N'GARKELO | Directeur de Cabinet<br>du Ministre de<br>L'Environnement<br>CHAD | <b>MINISTERE DE<br/>L'ENVIRONNEMENT,<br/>DE LA QUALITE DE<br/>VIE ET DES PARCS<br/>NATIONAUX</b>                   | 09/12/2011               |
| Mr. Zouladaini MALAM GATA        | Commissioner in<br>Charge of<br>Development<br>NIGER              | <b>MINISTERE DE<br/>L'ECONOMIE ET<br/>DES FINANCES</b>                                                             | 09/**/2011               |
| Mrs. Olabisi Bolanle JAJI        | Director<br>NIGERIA                                               | <b>FEDERAL MINISTRY<br/>OF ENVIRONMENT<br/>POLICY ANALYSIS,<br/>MONITORING AND<br/>INSPECTORATE<br/>DEPARTMENT</b> | 09/08/2011               |

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation. Following the new project cycle, [Enter Agency(ies) name] will submit all PIFs under the program within 6 months after Council approval of the PFD.

| <b>Agency Coordinator,<br/>Agency name</b> | <b>Signature</b> | <b>DATE<br/>(MM/dd/yyyy)</b> | <b>Project Contact Person</b> | <b>Telephone</b>  | <b>Email Address</b> |
|--------------------------------------------|------------------|------------------------------|-------------------------------|-------------------|----------------------|
| TOURINO<br>SOTO, Ignacio                   |                  | 09/15/2011                   | Diop<br>Bamba                 | +216 7110<br>6812 | b.diop@afdb.org      |
|                                            |                  |                              | Chileshe<br>Paxina            | +216 7110<br>3662 | p.chileshe@afdb.org  |

[Tapez un texte]

**ANNEX A**

**LIST OF PROJECTS UNDER THE PROGRAM FRAMEWORK**

| <b>Projects Submitted for Council approval in this work program + Future submissions:</b> |                               |                            |                       |                               |                          |                                        |
|-------------------------------------------------------------------------------------------|-------------------------------|----------------------------|-----------------------|-------------------------------|--------------------------|----------------------------------------|
| <b><u>Project Title</u></b>                                                               | <b><u>GEF Amount (\$)</u></b> |                            |                       | <b><u>Agency Fee (\$)</u></b> | <b><u>Total (\$)</u></b> | <b><u>Expected Submission Date</u></b> |
|                                                                                           | <b><u>Focal Area 1</u></b>    | <b><u>Focal Area 2</u></b> | <b><u>TOTAL</u></b>   |                               |                          |                                        |
|                                                                                           | <b><u>Project</u></b>         | <b><u>Project</u></b>      | <b><u>Project</u></b> |                               |                          |                                        |
| <b><u>FSP submitted with PFD in the work program</u></b>                                  |                               |                            |                       |                               |                          |                                        |
| 1.                                                                                        |                               |                            | 0                     |                               | 0                        | Same as program framework document     |
| 2.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 3.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 4.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| <b><u>Total</u></b>                                                                       | 0                             | 0                          | 0                     | 0                             | 0                        |                                        |
| <b><u>MSPs Submitted for CEO approval</u></b>                                             |                               |                            |                       |                               |                          |                                        |
| 1.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 2.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 3.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| <b><u>Total</u></b>                                                                       | 0                             | 0                          | 0                     | 0                             | 0                        |                                        |
| <b><u>FSP Projects to be submitted in future work programs:</u></b>                       |                               |                            |                       |                               |                          |                                        |
| 1.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 2.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 3.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 4.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| <b><u>Total FSPs</u></b>                                                                  | 0                             | 0                          | 0                     | 0                             | 0                        |                                        |
| <b><u>MSP Projects to be submitted for CEO Approval</u></b>                               |                               |                            |                       |                               |                          |                                        |
| 1.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 2.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 3.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| 4.                                                                                        |                               |                            | 0                     |                               | 0                        |                                        |
| <b><u>Total</u></b>                                                                       | 0                             | 0                          | 0                     | 0                             | 0                        |                                        |

Note: Qualifying GEF Agencies submitting the PFD do not need to fill this table. For all other GEF Agencies, fill in the focal area split, if any. If more than two focal areas involved, add columns as necessary.

[Tap



**PROGRAM FRAMEWORK DOCUMENT (PFD)**

**TYPE OF TRUST FUND: GEF TF**

**TYPE OF AGENCY: QUALIFYING GEF AGENCY**

**ANNEX 1 FOR LAKE CHAD PROGRAMMATIC APPROACH  
BASELINE PROJECTS**

| Projects                                                                                                                                           | Project Objectives / Baseline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Potential ‘additionality’                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b><i>Multinational - The Lake Chad Basin Sustainable Development Programme (PRODEBALT)-</i></b><br/>UA 60 million<br/>(US\$ 93.96 million)</p> | <p>The Lake Chad Basin Sustainable Development Programme (PRODEBALT) will be implemented in the conventional basin of Lake Chad which covers a surface area of 966,955 km<sup>2</sup>. It covers part of Cameroon, Niger, Nigeria, CAR and Chad. The expected outcomes of the project are the sustainable conservation of Lake Chad to ensure the economic security of the fresh water ecosystem resources, an integrated and judicious management of the basin so as to achieve sustainable development and equitable use of the natural resources for each country, while preserving its ecosystems and biodiversity. The programme will cover 6 years as from 2009, and its total cost is estimated at about UA 60.07 million. It is jointly financed by an ADF grant for an amount of UA 30 million and other donors (GTZ, BGR, European Union, World Bank, and the Islamic Development Bank).</p> <p>The project has been defined at the Basin level but with little consideration of the Watershed configuration</p> | <p><i>Watershed aspects (IWRM/TWRM) are fully considered in decision-making</i></p> <p><i>Application of SLM best practices in watershed management activities</i></p> <p><i>Coordinate, expand and mainstream conservation measures across the landscape as a whole, including protected areas</i></p> <p><i>Support sustainability of progress in strengthening management capacity</i></p> |
| <p><b><i>Chad - Projet Gestion valorisation des Ressources Naturelles (PGRN)</i></b><br/>UA 25.66 million<br/>(US\$ 41.31 million)</p>             | <p>The project is a response to the problem of food insecurity with which the country is often confronted. The project is focused in developing the necessary infrastructures for increase production under adverse climatic conditions – hydro-agricultural works (3,350 hectares), construction of the dam (73 km), construction of a trail connecting the areas of production to consumption centers and improve livelihoods - community. In addition, the project will be addressing the critical increase in soil degradation by tree planting activities, the actions of erosion control and land reclamation and those of water and soil conservation will recover degraded soils and ensure their fertility</p>                                                                                                                                                                                                                                                                                                    | <p><i>IWRM consideration in water management related to multi-users (electricity, agriculture etc)</i></p> <p><i>Promote sustainable agriculture productivity</i></p> <p><i>Increase water efficiency of the installed agricultural facilities</i></p>                                                                                                                                        |

[Tapez un texte]

| Projects                                                                                                                                              | Project Objectives / Baseline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Potential 'additionality'                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <p><b>Chad – Projet de développement de la pêche</b><br/>           UA 17.08 million<br/>           (US\$ 26.75 million)</p>                          | <p>The sector goal of the project is to contribute to poverty reduction. Its specific objective is to improve sustainably the livelihood of fishermen. The project will contribute to: (i) strengthening the institutional capacity of 5700 operators in the fishing industry; (ii) the development and management of natural resources in the Lake Chad ecosystem, (iii) the maintenance of production to a level of 120,000 tons per year on a sustainable manner; (iv) the protection of 100 km of shoreline and 400 000 miles of buffer areas; (v) the creation of 500 ha of community forests; (vi) the diversification of activities from fisheries; (vii) improving infrastructure, equipment and basic services for the enhancement of fishery products; and (viii) improving living conditions of populations.</p> | <p><i>Link fisheries with ecosystems – wetlands conservation, banks maangements etc</i></p>                         |
| <p><b>Nigeria - Community-Based Agriculture and Rural Development Project</b><br/>           UA 15.98 million<br/>           (US\$ 25.72 million)</p> | <p>The sector goal is to strengthen institutions to respond effectively and efficiently to the needs of the farmers and other participants in rural development for the enhancement of food security and reducing poverty. The project objective is to enhance the capacity of the agriculture and rural institutions for effective and sustainable service delivery to the farmers. The project will in turn lead to improved implementation of interventions and programs for the agriculture and rural sector and as such significantly contribute towards poverty alleviation</p> <p>The project is too focused in agriculture and rural development and attention is not given to ecosystems and water management</p>                                                                                                  | <p><i>Potential integration of successful agro-biodiversity strategies into landscape conservation programs</i></p> |
| <p><b>Niger - Projet d'Appui au Développement Local de Diffa (PADL)</b><br/>           UA 16.86 million<br/>           (US\$ 27.14 million)</p>       | <p>This is a multi sectoral project, centered on the protection and enhancement of production bases established in reference to major constraints and areas for development defined with the area stakeholders. The effective participation of communities living in the land affected by the project is an ongoing concern and a fundamental condition for all interventions.</p> <p>The main activities planned under the project are: (i) rehabilitation and</p>                                                                                                                                                                                                                                                                                                                                                         | <p><i>Potential integration of successful agro-biodiversity strategies into landscape conservation programs</i></p> |

[Tapez un texte]

| Projects                                                                                                                                                       | Project Objectives / Baseline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Potential 'additionality'                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                | <p>extension of 9 cooperatives for a total of 530; (ii) sustainable hydro-agricultural development of 300 ha of oasis basins; (iii) development of 200 acres of bowls on Lake Chad for flood recession farming; (iv) protection and rehabilitation of 600 ha of lowland for rain fed and pastoral production; (v) completion of 20 pastoral wells and rehabilitation of 10 old artesian well that will be self-managed; (vi) recovery of 1,500 hectares of grazing land; (vii) support for decentralization through the establishment and operation of seven councils and 90 local development committees, (viii) development and support to 3 land commissions; and (ix) achievements of social and economic infrastructure through a local self-managed investment fund.</p>                                              |                                                                                                                                                                   |
| <p><b><i>Chad - Projet d'infrastructures rurales, pastorales et de transhumance</i></b><br/>           UA 10.4 million<br/>           (US\$ 16.74 million)</p> | <p>The project's sector goal is to help reduce poverty in Chad. The specific objective is to increase animal production so as to increase the incomes of the beneficiaries in the long term.</p> <p>Project outputs include: strengthening and supporting associations of stockbreeders, cattle traders and butchers through increased professionalization, introducing local and national representatives of the profession; helping to train operators; encouraging the competitiveness of livestock products by modernizing production (livestock facilities and schemes), marketing (cattle markets and alleys), processing infrastructure (slaughtering areas, butchers' stalls) and building the capacity of service providers (rehabilitation of some outreach structures, certification of animal food stuffs).</p> | <p><i>Reduce pressures on natural resources from competing land uses in the wider landscapes</i></p> <p><i>Reducing land degradation induced by livestock</i></p> |
| <p><b><i>CRA - Rural Infrastructure Rehabilitation Support Project (PARIR)</i></b><br/>           UA 4.032 million<br/>           (US\$ 6.49 million)</p>      | <p>The project will contribute to improving food security through rural infrastructure rehabilitation and capacity building of beneficiary structures</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p><i>Promote sustainable agriculture productivity</i></p>                                                                                                        |



[Tapez un texte]

## **ANNEXE – 2 – DESCRIPTION OF THE PROGRAM AND COMPONENTS**

### **Lake Chad Basin Regional Program for the Conservation and sustainable use of natural resources and energy efficiency**

The program is a regional programme, at the basin level, centered on the provision of regional public goods through regional co-operation to promote concerted and sustainable management of the environment and natural resources in the Lake Chad basin. **The goal of the** of the program is to maintain the ecosystem services in the Lake Chad Basin by conserving the water and agro-sylvo ecosystems and ensuring the sustainability of use of resources in a context of energy efficiency and food security.

#### ***Programme Area and Beneficiaries***

The programme area is located in the conventional basin of Lake Chad, which currently covers 966.955 km<sup>2</sup>. The Lake Chad Basin constitutes a source of fresh water, where fishing, agricultural and grazing activities are carried out by the population of over 20 million inhabitants living in 21 territorial entities of the LCBC Member States. There are five climate types in the area and annual rainfall is between 200- 400 mm and 900-1400 mm/year. The impacts of climate change on the lake biotope are alarming, as this vital water body could disappear, its surface area having decreased by 90% over a 45-year period. Even though this is a closed basin located in an arid region, the Lake water shows a relatively low rate of salinity. One of the major problems of the lake water resources remains their depletion, with its current area of the lake water being less than 3,000 km<sup>2</sup>. The basin is strategic for the entire biodiversity as it is home to 120 fish and 372 bird species.

The primary programme beneficiaries are the rural populations living in the basin and exploiting its natural resources (farmers, graziers, fishermen, women and the youth). The livelihoods and incomes of the populations of the programme area are rather precarious. Therefore the programme is aimed at strengthening their capacities to assume responsibility to control silting and restoration of the agro-sylvopastoral potential. It will also help to improve the livelihoods of the most disadvantaged populations, in particular, and to diversify their sources of income.

#### ***Approach in Programme design***

The programme design will be based on extensive consultations (discussions, meetings, presentation workshops) during which stakeholders will share their opinions, concerns and ideas to inform and strengthen the programme design. The consultations will provide a platform for dissemination of the findings from the transborder diagnostic analysis conducted for the baseline project and the Lake Chad SAP and the expected role of communities in its implementation.

Consultations will be done at local level and also through workshops comprising representatives of LCBC Member States, donors and NGOs to ensure synergies with existing projects/ initiatives and communicate the objectives of the programme. The participatory approach, which will be continued and reinforced during implementation of the programme through training/sensitization, information and experience sharing with local communities and producer associations that benefited from capacity building under the World Bank/ UNDP implemented GEF/LCBC project.

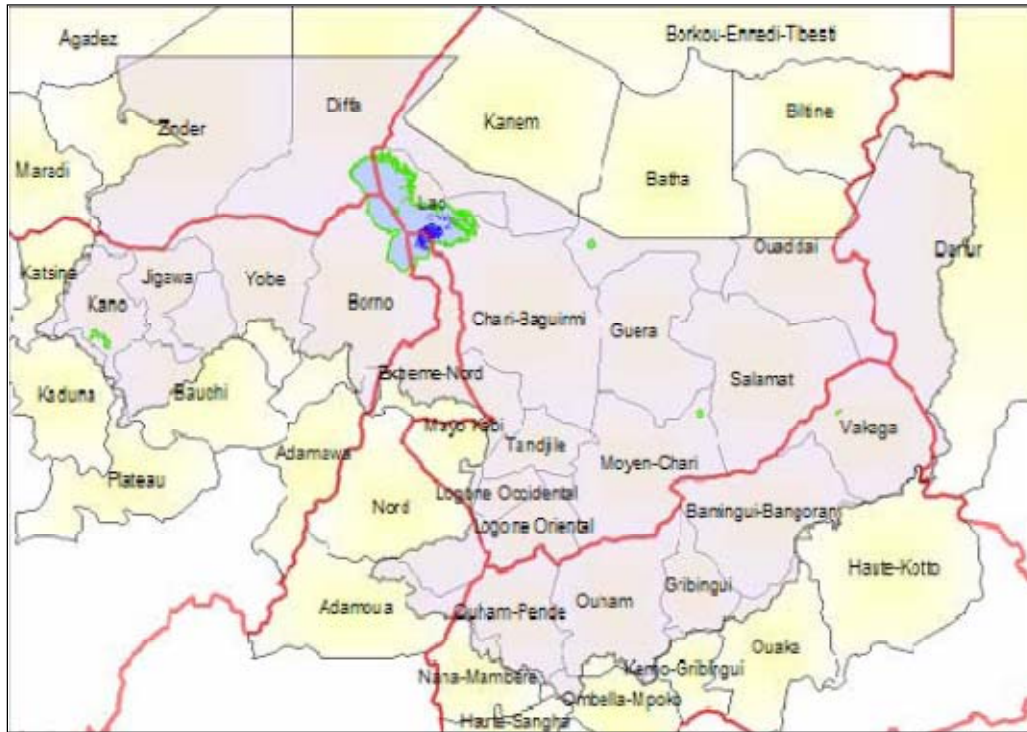
The design of the Lake Chad programme also incorporates the lessons learned from the earlier GEF financed UNDP/World Bank implemented project that resulted in the SAP. The lessons learnt from

[Tapez un texte]

this earlier project are detailed in the barriers section of the PFD. Two of the key lessons factored into the design of the lake Chad Programme are the focus on demonstration sites and activities as well as the involvement of communities in the implementation of the SAP through their participation in the community level activities and capacity building at local level.



[Tapez un texte]



Legend:

-  National boundaries between LCBC countries
-  States, Regions and Provinces of the Conventional Basin

The declining flows and water quality, erosion and silting is adversely affecting the provision of ecosystem services in Lake Chad and its entire basin. As a result of the adverse effects farmlands have been disrupted and fish production decreased thus threatening the livelihoods of the local communities as well as the loss of the rich biodiversity. The local populations with less than optimal agricultural practices and other competing water uses entail increased pressures on the natural asset base. The adverse effects from the populations and ecosystem dynamics are exacerbated by the climate change projections. The implementation of the Lake Chad basin programme will address various forms of land degradation and promote techniques of rational exploitation of the resources therefore leading to increased production of food crops, fish, meat, fruits and wood.

The programme will also help to improve regional consultation and co-operation as regards integrated management of the water resources, which will in the medium and long terms reduce potential sources of conflict among competing natural resources users. The programme approach will ensure coordination and monitoring of results from activities implemented within communities in the five Lake Chad basin countries. The sharing of lessons, regional level coordination by the LCBC and additional capacity building will enhance the implementation and realization of benefits from the programme.

[Tapez un texte]

The Lake Chad programme is anchored in the implementation of the SAP based on five priority areas: (i) improved quantity and quality of water in the Lake Chad Basin, (ii) restoration, conservation and sustainable use of bio-resources in the Lake Chad Basin, (iii) conservation of Biodiversity in Lake Chad Basin (iv) restoration and preservation of ecosystem resources in the Lake Chad Basin (v) strengthened participation and capacity of stakeholders and institutional and legal frameworks for environmental stewardship for Lake Chad Basin. The commitment of the LCBC and the member states in implementing the SAP has been demonstrated in the request submitted to various development partners for the financing that resulted in the baseline PRODEBALT. The Lake Chad programme funded by GEF will complement the baseline by further disseminating techniques for improved land, forest and watershed management to sustainable livelihoods development.

The GEF financed Lake Chad Programme addresses strategic regional and basin scale issues that are extremely challenging for the basin countries to combat individually. The Programme focuses on trans-boundary issues such as sharing of improved and tested practices in agriculture and watershed management, improved planning across boundaries, building local capacities for managing landscapes and providing platforms for communities to exchange experiences and to develop knowledge at a regional level on commonly faced challenges.

The outcomes of the Lake Chad Program focus include:

- The implementation of approaches and tools to produce global environmental benefits through the local actions and activities;
- The reinforcement of demonstrative actions and sustainability of investments in land, forest and water management for maintaining ecosystem services and improved livelihoods;
- Enhancement of database management, information sharing on water resources use and improved efficiency in the Lake Chad riparian countries; and
- Capacity building of national and watershed bodies in transboundary watershed and landscape management and planning.

The Lake Chad Program builds on the strategic and coordinated approach for the implementation of the SAP. The factors and activities that result in the declining quantity, quality and productivity of the natural resource base warrant coordinated regional effort to protect and rehabilitate the productive landscape that support the rich biodiversity and maintain the provision of ecosystem services thus providing livelihoods systems for the local populations.

The Programme components and outputs are as follows:

1. Incorporating sustainability in productive landscapes.
  - Improved water quality and conservation of ecosystems in existing fishing facilities – IW1
    - Control of invasive aquatic plants in water bodies
    - Pilot Demonstrative Fisheries/Aquaculture technology and management techniques to reduce water pollution and ensure sustainability
  - Demonstration of sustainable land management practices in agriculture productive areas  
LD1/IW

[Tapez un texte]

- Reducing water losses using agricultural and technological techniques (mulch, drip irrigation)
  - Restoration of wetlands and improved management of the ecosystem IW1
    - At least 6 out of the 12 Wetland-dependent IBAs will be restored
  - Natural regeneration of forest lands for fuelwood and other domestic uses BD2/SFM
    - Natural Farmer Managed Regeneration of over 20000 ha , equivalent to 600000tCo2
  - Reduced vulnerability and sustained productivity in agriculture areas LD1/IW1
    - Increase water efficiency : 20% reduction in water used for irrigation of existing irrigated areas
  - Installation of renewable energy systems for productive uses CC
    - Rational exploitation of wood through indirect actions by popularizing the use of RE stoves (450 000) and using biogaz and biomass – 900000 tCo2eq
    - Installation of demonstration RE utilities for agro-multi-purpose (fisheries, agriculture)
    - Reduction in rates of deforestation in the identified landscapes
    - Restoration of 12000 ha classified forests
2. Increasing efficiency of approaches and tools in the use of natural resources and energy for the realisation of global environmental benefits.
- Introduction of innovative water management practices at community level IW1/LD1
  - Dissemination and adoption of sustainable forest management technologies and guidelines SFM
  - Dissemination and adoption of renewable energy technologies: CCM
  - Dissemination and adoption of integrated natural resources management practices LD3
  - Capacity building for the adoption of improved technologies and guidelines in natural resources management LD3
  - Capacity building in adoption of renewable energies : Solar pumping, biomass, etc
3. Knowledge, capacity, and sustainable planning for climate resilience

The objective of the Expected outputs, under IW, and in collaboration with UNESCO will be: Assessment of ground water potential and recharge capacity of the aquifers including water quality and potential water uses to augment the surface water resources by :

a- Identification of pollution sources for surface waters and methods to reduce pollution

b- Transboundary aquifer delineation and managed aquifer recharge

c- Application within the local and sub regional context of the International Law on Transboundary Aquifers

d- Surface, groundwater interaction

e- Management of Groundwater dependent ecosystems

The outcomes will be:

[Tapez un texte]

- Informed decision making with improved knowledge on quantity and recharge of groundwater resources, and water users patterns IW
- Improved data collection techniques and standardisation of information IW
  - Groundwater data collected and database established
  - Early warning system is integrated into basin management
- Improved coordination and information exchange among the national entities and the regional level bodies such as the LCBC - IW
  - Sectoral expert networks are established and participate in LCB management
  - Support, with 1 % of IW funds ,IWLEARN activities , such as participation the IW conference, writing IW Experience Notes, setting up a webpage in accordance with IWLEARN tool kit guidance as well as participation in regional IWLEARN meetings.
- Increased awareness on linkages and interdependency of the landscapes by communities living in them and sharing their ecosystem services LD3
- Integration of ecosystems valuation and biodiversity in land use planning BD2
- Elaboration of forestry plans and improved demarcation of forest lands. SMF1
- Implementation of integration landscape management BD2

The program will be coordinated by the LCBC and implemented in collaboration with Lake Chad basin countries. The principles of the coordination and implementation will be:

- alignment of activities to be implemented at the national level under common programme results framework with agreement on shared and mutual benefits of a collaborating through the regional Lake Chad GEF programme;
- complementing the identified local level project activities that build on national level results and address basin wide challenges and issues;
- supplementing multi-focal area strategies funding from the GEF and other partners involved in baseline projects, including support for climate change mitigation and adaptation programs that target rich biodiversity and productive landscapes in the Lake Chad basin;
- targeted support for trans-boundary landscapes of regional importance such as wetlands that require coordinated effort from Lake Chad basin countries and propmote regional cooperation; and
- leveraging synergies with programmes such as PRODEBALT which is funded by several development partners.

The GEF Trust Fund and SFM Funding requested for the program is estimated at \$20,565,067, to supplement over \$170 million in co-financing from the AfDB.

[Tapez un texte]

### ***Social and Gender aspects***

- The number of women working in the investment and demonstrations activates and the number of women participating to the training will be monitored
- The impacts in women health (related to water quality and less wood charges) will be estimated by Health center statistitcs
- Permanent jobs (#) related to investment, increase of production (T/Ha) and increase in fishing as well as revenues (CFAF) will also be considered as a measure of social improvement conditions
- In addition to that, the project will help to reduce conflicts between communities of farmers and graziers by introducing comprehensive NRM approaches in the basin and will ensure sustainability of basin ecosystems

### ***Program Implementation***

The activities defined to achieve the expected outcomes and outputs will be undertaken at sub-project -or child project level-. In this regard, 6 projects are planned, one per country and one at the regional

The national projects will ensure that demonstration activities take place locally and the expected results are tangible are the national level, using the STAR allocation. The regional level will allow harmonization of data collection in the riparian countries, coordination of activities and ensure a comprehensive and coordinated IWRM approach, for the regional project the IW resources will be allocated.

A summary of the national projects as well as of the regional projects is introduced in Annex 4

[Tapez un texte]

### ANNEXE 3 -BASELINE PROJECT DESCRIPTION – CO-FINANCING - & GEF ALTERNATIVES

#### MULTINATIONAL - THE LAKE CHAD BASIN SUSTAINABLE DEVELOPMENT PROGRAMME (PRODEBALT)- UA 60 million - (US\$ 93.96 million)

##### Parent project description

The Lake Chad Basin Sustainable Development Programme (PRODEBALT) will be implemented in the conventional basin of Lake Chad which covers a surface area of 966,955 km<sup>2</sup>. It covers part of Cameroon, Niger, Nigeria, CAR and Chad. The expected outcomes of the project are the sustainable conservation of Lake Chad to ensure the economic security of the fresh water ecosystem resources, an integrated and judicious management of the basin so as to achieve sustainable development and equitable use of the natural resources for each country, while preserving its ecosystems and biodiversity.

The programme beneficiaries are the populations of the provinces, regions and States of the five countries in the Lake Chad basin. The population, which is estimated at nearly 30 million inhabitants, consists mainly of farmers, graziers and fishermen who live on the exploitation of its natural resources. The fight against various forms of land degradation and promotion of techniques of rational exploitation of the resources envisaged by the programme will lead to increased production of food crops, fish, meat, fruits and wood. This will increase the incomes of the target populations, particularly women, by 67% on average and strengthen food security. Most of the programme actions will be labour-intensive, thereby ensuring the participation of the beneficiary populations in their implementation, including co-financing and the management of micro-projects for local development

**Project Objectives:** The project's sector goal Sustainably reduce poverty among the populations living on the resources of the Lake Chad basin. The specific objective is Improve the productivity and management of the Lake Chad basin ecosystems:

- The hydrological conditions of the Lake basin are improved
- The productivity of farmlands, cattle and fish spawning grounds is improved

**Project Outputs:** The three main expected results are

- The water inflows to the lake will increase and sedimentation will be reduce
- The agro- production (fisheries, crops and cattle) will increase
- Fuel wood consumption decreases and reforestation and agro-forestry increase

| Project Activities under co-financing                                                                          | IW<br>mUS\$ | CC<br>mUS\$ | BD<br>mUS\$ | LD<br>mUS\$ | SFM mUS\$ | Co-<br>financing<br>mUS\$ |
|----------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-----------|---------------------------|
| Technical assistance (water management, forestry, agriculture, energy)                                         | 4.86        | 1.21        | 1.21        | 1.21        | 1.21      | 9.70                      |
| Training and guidance (energy uses, water, agro forestry...)                                                   | 1.30        | 0.66        | 1.20        | 0.95        | 0.84      | 4.95                      |
| Demonstration / extension equipment / vulgarization                                                            | 0.82        | 0.00        | 0.14        | 0.14        | 0.14      | 1.23                      |
| Livestock and fishing demonstrations investment                                                                | 2.43        | 0.00        | 0.81        | 1.62        | 0.00      | 4.86                      |
| Demonstration sites, irrigation facilities, water points                                                       | 4.86        | 0.00        | 0.00        | 0.00        | 0.00      | 4.86                      |
| Regeneration                                                                                                   | 0.00        | 1.62        | 0.00        | 0.00        | 4.86      | 6.48                      |
| Soil development and protection (soil conservation, dunes fixation, control invasive aquatic, canal clear-out) | 0.00        | 0.00        | 1.30        | 11.34       | 0.81      | 13.45                     |
| Studies (water, forest plan, soil plan,etc)                                                                    | 5.96        | 2.43        | 0.00        | 0.41        | 0.41      | 9.20                      |



[Tapez un texte]

|                                                                                                     |       |      |      |       |                    |       |
|-----------------------------------------------------------------------------------------------------|-------|------|------|-------|--------------------|-------|
| Lake Chad protection (- Control of invasive aquatic plants in water bodies, clear out channel, etc) | 3.24  | 0.00 | 0.00 | 0.00  | 0.00               | 3.24  |
| Technical equipment (stoves, solar, etc)                                                            | 0.00  | 0.52 | 0.00 | 0.00  | 0.00               | 0.52  |
| Total                                                                                               | 23.47 | 6.44 | 4.65 | 15.66 | 8.27               | 58.49 |
|                                                                                                     |       |      |      |       | Total Project      | 97.20 |
|                                                                                                     |       |      |      |       | Co-financing Ratio | 60%   |

### Baseline Scenario

- In the area of IW the baseline project will be undertake considerable efforts in terms of capacity building and technical assistance related to the water investment ecosystems conservation investments, such as irrigation facilities, clean-up of canals and additional efforts to reduce water consumption and losses and increase therefore efficiency. The baseline will also provide assistance in the area of water management and data collection, by installing piezometers, that will provide a knowledge based decision-making
- In the area of CC, the baseline investment corresponds to a series of efforts related to the sustainable production of charcoal for energy consumption – increase of energy capital as well as dissemination and training activities to promotion energy efficiency and alternative sources and technologies such biogas technologies and improved stoves.
- The majors investment in the co-financing are related to soil development and ecosystems protection investment such as dunes fixation, grazing areas, vegetative barriers and regeneration activities that associated with technical assistance and practices dissemination are the baseline for BD, LD and SFM.

### LAKE CHAD BASIN WATER CHARTER DEVELOPMENT (AWF approved by AfDB)

EU 1,000,000 - (US\$1,610,000) UA 60 million - (US\$ 93.96 million)

Parent project description

The project contributes to enhancing the population's environment and quality of life and to facilitate the implementation of the IWRM 2025 Vision Strategic Action Plan to the Commission of Lake Chad Basin (CBLT). The legal and institutional framework combined with the political will are an indispensable components for the new integrated rational, equitable and sustainable approach of Lake Chad Basin shared water resources management. Consequently, the creation and implementation of a regulation and legal framework (a Water Charter) appropriate and flexible has been considered. Indeed, the implementation of the water Charter will enable a fair use of water resources among the different countries and users as well as prevention of conflicts related to shared water use. The value added by the AWF funded project is to implement the legal and institutional framework as a central instrument for the CBLT to execute its Strategic Action Plan.

| Project Activities under co-financing | IW mUS\$ | CC mUS\$ | BD mUS\$ | LD mUS\$ | SFM mUS\$ | Co-financing mUS\$ |
|---------------------------------------|----------|----------|----------|----------|-----------|--------------------|
| Diagnostic of the basin               | 0.76     | 0        | 0        | 0        | 0         | 0.76               |
| Charter document created and shared   | 0.44     | 0        | 0        | 0        | 0         | 0.44               |
| Charter dissemination training, etc   | 0.41     | 0        | 0        | 0        | 0         | 0.41               |
| <b>Total</b>                          |          |          |          |          |           | <b>1.61</b>        |

### Baseline Scenario

[Tapez un texte]

The creation of the Charter, which is a legal instrument required for the implementation of the SA,P strengthen the management of Lake Chad's trans border water resources and is the creates the enable environment for the development of the GEF alternatives as well as the baselines investments. It's also a step forward in terms of collaboration among the riparian countries and an opportunity for agreements

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|----------------|------------------|---------------------|------------------|------------------|------------------|-----|------------------|--------------------|-------------------|
| <b>GEF alternative</b>              | <p><b>Description of GEF alternative:</b></p> <ul style="list-style-type: none"> <li>- The baseline project takes into consideration some aspects of coordination by reinforcing LCBC, but this coordination needs to be enhanced by knowledge on the availability and use of the water resources and users, the additionality for GEF, in particular for the IW FA will be the full consideration of TWRM and IWRM aspects in planning and in the management of the existing facilities, mainly in terms of agriculture, fisheries and livestock production. In this regards, pilot projects in terms of water efficiency techniques such as drip irrigation, management fisheries techniques less pollutants and enhance management of the water resources of the Lake bassin</li> <li>- GEF resources from the land degradation, climate change mitigation and biodiversity Focal Areas will be blended with the PRODEBALT to promote on ground investments in sustainable land and water management practices and biodiversity conservation measures, particularly in river bank restoration and protection, canal maintenance, pond construction and maintenance and in the dissemination of conservation agriculture techniques,</li> <li>- SFM efforts in the area - regeneration master plans, practices disseminations –will contribute to restoration and enhancement of carbon stocks in the forest areas, this action linked to dissemination of energy sources alternatives will be linked to the afforestation/regeneration baseline. In addition to that GEF alternative will support the preparation and implementation of protected area management plans as well as the establishment of wildlife corridors.</li> <li>- GEF will complement by addressing the interphase between agriculture land, pastoral land and forest land in an integrated ecosystem approach that generates global benefits             <ul style="list-style-type: none"> <li>o The CC FA will support the implementation of RE:Household alternatives to traditional approaches, resulting in reduced GHG emissions from charcoal production and use. This support will include technical and institutional capacity building besides technology transfer. Low carbon technologies such as improved cook stoves, biogas digesters, and small/micro hydropower will be disseminated. These examples of energy technologies reduce pressure on forest and woodlands by reducing demand for fuelwood, and reduce GHG emissions and indoor air pollution by fuel switching to cleaner options</li> </ul> </li> </ul> |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
|                                     | <p><b>Incremental GEF financing</b></p> <table> <tr> <td>Biodiversity</td> <td style="text-align: right;"><b>638,597</b></td> </tr> <tr> <td>Climate Change</td> <td style="text-align: right;"><b>2,390,408</b></td> </tr> <tr> <td>International Water</td> <td style="text-align: right;"><b>5,972,685</b></td> </tr> <tr> <td>Land degradation</td> <td style="text-align: right;"><b>2,662,425</b></td> </tr> <tr> <td>SFM</td> <td style="text-align: right;"><b>1,972,185</b></td> </tr> <tr> <td><b>Grand Total</b></td> <td style="text-align: right;"><b>13,636,300</b></td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Biodiversity | <b>638,597</b> | Climate Change | <b>2,390,408</b> | International Water | <b>5,972,685</b> | Land degradation | <b>2,662,425</b> | SFM | <b>1,972,185</b> | <b>Grand Total</b> | <b>13,636,300</b> |
| Biodiversity                        | <b>638,597</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| Climate Change                      | <b>2,390,408</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| International Water                 | <b>5,972,685</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| Land degradation                    | <b>2,662,425</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| SFM                                 | <b>1,972,185</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| <b>Grand Total</b>                  | <b>13,636,300</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |
| <b>Implementing body (if known)</b> | Lake Chad Basin Commission and national bodies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                |                |                  |                     |                  |                  |                  |     |                  |                    |                   |

[Tapez un texte]

**CHAD - NATURAL RESOURCE MANAGEMENT AND DEVELOPMENT**

UA 20.42 + 9.57 UA (48.2889)

**Parent project description (IDA, TF, etc)** The project is a response to the problem of food insecurity with which the country is often confronted  
**Project Objectives:** Sustainable increase in natural resource productivity in the Sudan region by:

- Increasing the surface area of developed and protected areas (irrigation areas, tree plantations, SCR-SWC, non-grazing areas, fishponds, vegetable gardens)
- Increasing productivity

**Project expected outputs and components:**

The project is divided in 2 main components one is the Institutional capacity development and the second in investment in , natural resources. The objective of the institutional capacity reinforcement is to establish NRM committees at the community level and organized training and workshops related to the investments undertaken. Those investments are related to development of a rice growing areas, soil fertility improvement, irrigation farming, fishponds development and reforestation of land community and fruit trees and soil and water protection In addition to soil degradation by tree planting activities for erosion control will recover degraded soils and ensure their fertility. Demonstration improved stoves and biogas units will also be disseminated

| Project Activities under co-financing                                                     | IW<br>mUS\$ | CC<br>mUS\$  | BD<br>mUS\$ | LD<br>mUS\$  | SFM<br>mUS\$ | Co-<br>financing<br>mUS\$ |
|-------------------------------------------------------------------------------------------|-------------|--------------|-------------|--------------|--------------|---------------------------|
| Institutional development (NRM committees at village and canton level, organizations etc) | 0           | 0            | 1           | 0.29         | 0            | <b>1.288</b>              |
| NRM Workshops and training for committees and officials                                   | 0           | 0            | 1           | 0.13         | 0            | <b>1.127</b>              |
| Improvement of agriculture, fruitculture, agro-forestry and livestock                     | 0           | 0            | 0           | 0.57         | 0.4          | <b>0.966</b>              |
| Soils and water protection and fertility improvement                                      | 0.9         | 0            | 0           | 0.71         | 0            | <b>1.61</b>               |
| Development of new productive areas (rize land excluded)                                  | 0           | 0            | 0           | 6.44         | 0            | <b>6.44</b>               |
| Reforestation of community land and protection of forest                                  | 0           | 2.42         | 0           | 0            | 2.42         | <b>4.83</b>               |
| Dissemination of biogas units and improved stoves                                         | 0           | 1.61         | 0           | 0            | 0            | <b>1.61</b>               |
| <b>Totals</b>                                                                             | <b>0.9</b>  | <b>4.025</b> | <b>2</b>    | <b>9.031</b> | <b>2.815</b> | <b>17.871</b>             |

The implementing agency of the Baseline project is the Ministry of Agriculture and Irrigation.

**CHAD - FISHERIES DEVELOPMENT PROJECT**

UA 17,08 (26,75)

**Parent project description (IDA, TF, etc)** Project Objectives:  
 The goal of the project is to contribute to poverty reduction. Its specific objective is to improve sustainably the livelihood of fishermen.  
 Project expected outputs and components:

[Tapez un texte]

The project consists of four components, namely: institutional capacity building ; development and sustainable management of resources ; marketing support; and project management..

The main expected outputs are

- (i) strengthening the institutional capacity
- (ii) the development and management of natural resources in the Lake Chad ecosystem,
- (iii) the maintenance of production on a sustainable manner;
- (iv) the protection of shoreline and buffer areas;
- (v) the creation of 500 ha of community forests;
- (vi) the diversification of activities from fisheries;
- (vii) improving infrastructure, equipment and basic services at grassroots level with a view to developing fish products

| <b>Project Activities under co-financing</b>                                                          | <b>IW<br/>mUS\$</b> | <b>CC<br/>mUS\$</b> | <b>BD<br/>mUS\$</b> | <b>LD<br/>mUS\$</b> | <b>SFM<br/>mUS\$</b> | <b>Co-<br/>financing<br/>mUS\$</b> |
|-------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|
| Capacity building for fishermen and partenrs institutaions (natural ressources techniques, management | 2.12                | 0                   | 4.7                 | 1.61                | 0                    | <b>8.43</b>                        |
| Rational management of fishery resources (investments : nets, ponds..                                 | 1.05                | 0                   | 1.06                | 0.78                | 0                    | <b>2.89</b>                        |
| Studies (integrated management plans, technics studies)                                               | 0.6                 | 0                   | 0.5                 | 0.56                | 0.5                  | <b>2.16</b>                        |
| Bank Erosion and pollution control campaigns                                                          | 0                   | 0                   | 2.01                | 2                   | 0                    | <b>4.01</b>                        |
| Awareness campaigns in ecosystems (fisheries)                                                         | 0.4                 | 0                   | 0                   | 0.4                 | 0                    | <b>0.8</b>                         |
| Reforestation of community land and protection of forest                                              | 0                   | 0                   | 0                   | 0                   | 3.22                 | <b>3.22</b>                        |
| <b>Totals</b>                                                                                         | <b>4.17</b>         | <b>0</b>            | <b>8.27</b>         | <b>5.35</b>         | <b>3.72</b>          | <b>21.51</b>                       |

The implementing agency of the baseline project is the Ministry of Environment and Water

*CHAD -RURAL, PASTORAL AND TRANSHUMANCE INFRASTRUCTURE PROJECT*

*UA 10.4 million (US\$ 16.74 million)*

**Parent project description** *Project Objectives:* The project's sector goal is to help reduce poverty in Chad. The specific objective is to increase animal production so as to increase the incomes of the beneficiaries in the long term.

*Project Outputs:* the ADF and OPEC will finance jointly all project outputs with the participation of the Government and beneficiaries. Outputs include: strengthening and supporting associations of stockbreeders, cattle and traders and butchers through increased professionalisation, by modernising production (livestock facilities and schemes, and building the capacity for sustainable pastoralism and natural resources sharing, reducing therefore conflicts

In relation to Climate Change. A key activity will be to raise awareness for improving the level of livestock exploitation in order to context methane digesters.

[Tapez un texte]

| <b>Project Activities under co-financing</b>                                                  | <b>IW<br/>mUS\$</b> | <b>CC<br/>mUS\$</b> | <b>BD<br/>mUS\$</b> | <b>LD<br/>mUS\$</b> | <b>SFM<br/>mUS\$</b> | <b>Co-<br/>financing<br/>mUS\$</b> |
|-----------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|
| Construction of structures for securing livestock                                             | 0                   | 0.5                 | 0                   | 2.72                | 0                    | 3.22                               |
| Development and implementations of pastoral resource management schemes                       | 0                   | 0                   | 0                   | 6.44                | 0                    | 6.44                               |
| Strengthening national capacity to manage and monitor sustainable pastoralism                 | 0                   | 0                   | 0                   | 0.40                | 0                    | 0.40                               |
| Capacity building of organizations and structures for sustainable management of the resources | 0                   | 0.00                | 0                   | 0.40                | 0                    | 0.40                               |
| Totals                                                                                        | 0                   | 0.5                 | 0                   | 9.965               | 0                    | 10.46                              |

The implementing agency is the Ministry of Livestock and Animal Resources

**GEF  
alternative**

**DESCRIPTION OF GEF ALTERNATIVE**

Funds from GEF focal areas in IW will strength the IW aspects related to the agriculture investment and fisheries investments that have been identified in the SAP.

This will contribute to ensure sustainability of the agriculture practices and technologies promoted in the baseline and improve the agricultural practices.

Details will be determined during project formulation, but it is expected that the funds will support the implementation of the following actions that will generate local, national and global benefits:

- Sustainable land management interventions for agricultural systems,
- Creation and management of Protected Areas in watersheds, particularly fishing protected areas
- Support for creation and management of nurseries,
- Land use planning including grazing corridors
- community based alternative livelihood options that reduce pressure on natural resource.

Under CC, the activities to be funded will be targeted at developing bio-gas potential using methane digester to produce energy (biogas) on livestock schemes of the intervention area particularly in the use to provide refrigeration and thus cool the meat and add value to the chain of livestock products. The other activities to be financed will be rangeland management and the restoration of the basins for irrigation and improved crop production, improved water control and improving the national level water governance.

Funds from GEF focal areas (LD, BD and SFM) will incorporate planning process, appropriate management and sustainable technologies, and community and government capacity building. This will contribute to ensure sustainability of the development micro-projects as well as the agriculture and livestock practices and technologies promoted in the baseline. Reforestation and natural regeneration will be promoted in the production of fodder. Activities such as land use planning including grazing corridors and community based alternative

[Tapez un texte]

livelihood options that reduce pressure on natural resource will generate local, national and global benefits.

**Incremental GEF financing**

|                     |                  |
|---------------------|------------------|
| Biodiversity        | 355,828          |
| Climate Change      | 1,275,774        |
| International Water | 0                |
| Land degradation    | 190,932          |
| SFM                 | 607,511          |
| <b>Grand Total</b>  | <b>2,430,045</b> |

**Implementing  
body (if  
known**

TbD - There is three baseline ministries

[Tapez un texte]

**NIGERIA - COMMUNITY-BASED AGRICULTURE AND RURAL DEVELOPMENT PROJECT**

UA 15.98 million (US\$ 25.72 million)

**Parent project description** **Project Objectives:** The project goal is to strengthen institutions to respond effectively and efficiently to the needs of the farmers and other participants in rural development for the enhancement of food security and reducing poverty. The project objective is to enhance the capacity of the agriculture and rural institutions for effective and sustainable service delivery to the farmers. The project will in turn lead to improved implementation of interventions and programs for the agriculture and rural sector and as such significantly contribute towards poverty alleviation

**Project Outputs and components:** The project has four components: (A) Capacity Building; (B) Production Development; (C) Community Development and (D) Project Management and Coordination. The outputs under each of these components are summarised as follows: 1): Capacity of rural communities to plan and implement development activities strengthened and sustained; 2): Capacity of local and state governments to support, monitor and evaluate project activities enhanced; 3) Crop productivity increased and restored; 4): Crop and livestock production integrated and intensified and 5): Social and rural infrastructure improved and maintained.

**GEF alternative** **DESCRIPTION OF GEF ALTERNATIVE:**  
 The project is too focused in agriculture and rural development and attention is not given to ecosystems and water management  
 The GEF alternative is on the integration of successful agro-biodiversity strategies into landscape conservation programs, under LD and BD and SFM. Investment in SLWM, in particular vegetative measures such as agroforestry, cover cropping; land use planning including grazing corridors, sustainable measures such as contour farming and community based alternative livelihood options that reduce pressure on natural resources will be disseminated. In parallel, incentives mechanisms such as payment for environmental services will be piloted to contribute to the enabling environment for the application of SLWM.

For agricultural purposes alternatives to fuel will be promoted, resulting in reducing GHG emission from fuel consumption (generators and water pumps). The RE alternatives will also reduce the risk of water bodies pollution by fuel. The RE main alternatives are solar, hydro-power and in specific case wind water pumping. The bigger potential is the hydro-power potential from dams built for flood recession irrigation (please note those physical investment are not considered as GEF co-financing). Those dams are the least energy efficient way for irrigation. When water is released for irrigation it can be used to drive hydro-electric equipment or hydro-pumps that can supply more efficient irrigation systems and allowing for storage, therefore decreasing post-harvest lost and increasing food security

| <i>Components</i>                                                                                             | <b>IW<br/>mUS\$</b> | <b>CC<br/>mUS\$</b> | <b>BD<br/>mUS\$</b> | <b>LD<br/>mUS\$</b> | <b>SFM<br/>mUS\$</b> | <b>Co-<br/>financing<br/>mUS\$</b> |
|---------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|
| Capacity of rural communities to plan and implement development activities strengthened and sustained         | 0                   | 0                   | 0                   | 3.6225              | 0                    | 3.6225                             |
| Capacity of local and state governments to support, monitor and evaluate project activities enhanced.         | 0                   | 0                   | 0                   | 4.4275              | 0                    | 4.4275                             |
| Crop productivity increased and restored (soil fertility, water efficiency, water reservoirs for electricity) | 0                   | 1                   | 0                   | 3.025               | 0                    | 4.025                              |
| Crop and livestock production integrated and intensified                                                      | 0                   | 0                   | 0                   | 4.025               | 0                    | 4.025                              |
| <b>Total</b>                                                                                                  | <b>0</b>            | <b>1</b>            | <b>0</b>            | <b>15.1</b>         | <b>0</b>             | <b>16.1</b>                        |

[Tapez un texte]

|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| <b>Incremental GEF financing</b>    |                                                       |
| Biodiversity                        | 0                                                     |
| Climate Change                      | 100,000                                               |
| International Water                 | 0                                                     |
| Land degradation                    | 781,085                                               |
| SFM                                 | 0                                                     |
| <b>Grand Total</b>                  | <b>881,085</b>                                        |
| <b>Implementing body (if known)</b> | Federal Ministry of Agriculture and Rural Development |



[Tapez un texte]

**NIGER - DIFFA REGION LOCAL DEVELOPMENT SUPPORT PROJECT (PADL)**

*UA 16.86 million (US\$ 27.14 million)*

**Parent project description**

**Project Objectives:** This is a multi sectoral project, centered on the protection and enhancement of production bases established in reference to major constraints and areas for development defined with the area stakeholders. The effective participation of communities living in the land affected by the project is an ongoing concern and a fundamental condition for all interventions.

The main activities planned under the project are: (i) rehabilitation and extension of 9 cooperatives for a total of 530; (ii) sustainable hydro-agricultural development of 300 ha of oasis basins; (iii) development of 200 acres of bowls on Lake Chad for flood recession farming; (iv) protection and rehabilitation of 600 ha of lowland for rain fed and pastoral production; (v) completion of 20 pastoral wells and rehabilitation of 10 old artesian well that will be self-managed; (vi) recovery of 1,500 hectares of grazing land; (vii) support for decentralization through the establishment and operation of seven councils and 90 local development committees, (viii) development and support to 3 land commissions; and (ix) achievements of social and economic infrastructure through a local self-managed investment fund

**Project Outputs and components:** The project has four components: (A) Capacity Building; (B) Production Development; (C) Community Development and (D) Project Management and Coordination. The outputs under each of these components are summarized as follows: 1): Capacity of rural communities to plan and implement development activities strengthened and sustained; 2): Capacity of local and state governments to support, monitor and evaluate project activities enhanced; 3) Crop productivity increased and restored; 4): Crop and livestock production integrated and intensified and 5): Social and rural infrastructure improved and maintained.

| <i>Components</i>                                            | <b>IW<br/>mUS\$</b> | <b>CC<br/>mUS\$</b> | <b>BD<br/>mUS\$</b> | <b>LD<br/>mUS\$</b> | <b>SFM<br/>mUS\$</b> | <b>Co-<br/>financing<br/>mUS\$</b> |
|--------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|
| <i>Diffa Region Local Development Support Project (PADL)</i> | 0                   | 0                   | 5.34                | 12.34               | 2.34                 | 20.02                              |

**GEF alternative**

**Description of GEF alternative:**

GEF resources from the land degradation and biodiversity Focal Areas will support and enhance sustainability of the baseline project by promoting vegetative land management practices, such as by establishing conservation set asides along erosion-prone waterways and vegetation corridors

Therefore, enabling environments for SLWM practices with biodiversity considerations will ensure the sustainability of the agricultural practices and alternative livelihood options promoted in the baseline projects as well as consistency and coordination in natural resources management. Activities in reforestation and natural regeneration will be undertaken to improve the land management and rangeland management and reduce pressure on natural resources from competing users.

**Incremental GEF financing**

|                     |                |
|---------------------|----------------|
| Biodiversity        | <b>550,000</b> |
| Climate Change      | <b>0</b>       |
| International Water | <b>0</b>       |

[Tapez un texte]

|                                        |                    |                  |
|----------------------------------------|--------------------|------------------|
|                                        | Land degradation   | <b>600,000</b>   |
|                                        | SFM                | <b>400,000</b>   |
|                                        | <b>Grand Total</b> | <b>1,550,000</b> |
| <b>Implementing<br/>body (if known</b> |                    |                  |

[Tapez un texte]

**CRA - RURAL INFRASTRUCTURE REHABILITATION SUPPORT PROJECT (PARIR)**

UA 4.032 million (US\$ 6.49 million)

**Parent project description**

**Project Objectives:** The project will contribute to improving food security through rural infrastructure rehabilitation and capacity building of beneficiary structures

**Project Outputs:** The main expected outputs consist of the rehabilitation of auxiliary agricultural and livestock infrastructures such as cattle markets, slaughterhouses, municipal and rural markets and Equipment, including procurement of solar panels for pumping water and lighting.

The introduction of solar power, to pump water and provide rural lighting, is only done on a demonstrational basis seeking to improve knowledge on this technology for its subsequent extension

| <i>Components</i>                                                  | <b>IW<br/>mUS\$</b> | <b>CC<br/>mUS\$</b> | <b>BD<br/>mUS\$</b> | <b>LD<br/>mUS\$</b> | <b>SFM<br/>mUS\$</b> | <b>Co-<br/>financing<br/>mUS\$</b> |
|--------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|
| <i>Rural Infrastructure Rehabilitation Support Project (PARIR)</i> | 0                   | 0                   | 3.12                | 2.78                | 1.47                 | 7.37                               |

**Incremental GEF financing**

|                     |                |
|---------------------|----------------|
| Biodiversity        | <b>200,000</b> |
| Climate Change      | <b>200,000</b> |
| International Water |                |
| Land degradation    | <b>400,000</b> |
| SFM                 | <b>0</b>       |
| <b>Grand Total</b>  | <b>800,000</b> |

**GEF alternative**

**Description of GEF alternative:**

GEF resources, from Land Degradation and Biodiversity Focal Areas will be associated to the baseline project in order to achieve global environmental benefits from the rural infrastructure rehabilitation. The neglected aspects of capacity building and SLWM management practices dissemination and pilots will enhance the baseline project infrastructure and ensure that the natural resources are used adequately.

In addition to that, CC mitigation can provide support services. The project will facilitate a variety of sustainable land and water management practices such as soil conservation techniques, crop management, agro-forestry practices, water harvesting and improved livestock management activities to be funded under the programmatic approach will be targeted at developing bio-gas potential using methane digester to produce energy (biogas) on livestock schemes of the intervention area particularly in the use to provide refrigeration and thus cool the meat and add value to the chain of livestock products. The other activities to be financed will be rangeland management

[Tapez un texte]

and the restoration of the basins for irrigation and improved crop production, improved water control and improving the national level water governance.

Funds from GEF focal areas (LD, BD and SFM) will incorporate planning process, appropriate management and sustainable technologies, and community and government capacity building. This will contribute to ensure sustainability of the development of micro-projects as well as the agriculture and livestock practices and technologies promoted in the baseline. Activities such as land use planning including grazing corridors and community based alternative livelihood options that reduce pressure on natural resource will generate local, national and global benefits.

|                                     |                                            |
|-------------------------------------|--------------------------------------------|
| <b>Implementing body (if known)</b> | Ministry of Livestock and Animal Resources |
|-------------------------------------|--------------------------------------------|

[Tapez un texte]

## ANNEXE 4 -SUB- PROJECTS

| 1-REGIONAL – CONSERVATION AND SUSTAINABLE DEVELOPMENT OF THE LAKE CHAD |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                    |                |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|----------------|
| <b>Project description</b>                                             | <p><b>Project Objectives:</b> The project will focus in implementing the SAP for the Lake Chad, focusing in ecosystems conservations and sustainable development and enhancing the coordination of the national projects</p> <p><b>Expected Outputs and components</b><br/>           GEF resources from the international waters will enhance sustainability of the baseline project by promoting vegetative land management practices, such as by establishing conservation set asides along erosion-prone waterways and water efficiency technologies in the existing irrigation schemes that will allow to get local benefits as well as GEB.</p> <p><i>Component 1: Institutions, Information and Policy.</i> This component will support (i) scaling up of good practices demonstrated on the ground through institutional strengthening and catalyzing understanding that IWRM/TWRM is inter-sectoral, (ii) collect information in the ground related to surface and ground water and water user patterns in a harmonized way among the riparian countries and (ii) will reinforce the national bodies that will be in charge of countries implementation projects to ensure the coordination in undertaken the demonstration activities (iv) will ensure coordination and preparation of relevant studies and practices that will promote IWRM and TWRM and dissemination of the technologies promoted in the demonstration sites</p> <p><i>Component 2: Ensuring ecosystems sustainability :</i> This component will be focused in Local demonstration and investments in wetlands ecosystems (Restored habitat, wetlands) as well as land management demonstrations in the agriculture and fisheries sectors that will reduce the water use and pollution.</p> |                        |                    |                |
| <b>GEF alternative</b>                                                 | <b>GEF financing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |                    |                |
|                                                                        | <b>Program Amount (a)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Agency Fee (b)2</b> | <b>Total c=a+b</b> |                |
|                                                                        | International Water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$6,287,037.04         | \$502,962.96       | \$6,790,000.00 |
| <b>Implementing body (if known)</b>                                    | LCBC – Lake Chad Basin Commission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                    |                |

[Tapez un texte]

| 2-CHAD –COMPREHENSIVE MANAGEMENT of NATURAL RESSOURCE in the LAKE CHAD BASIN |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------|--------------------|
| <b>Project description</b>                                                   | <b>Project Objectives:</b> A comprehensive management of natural resources in the Lake Chad Basin - Chad                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              | <b>Expected Outputs and components</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              | <u>Component 1: Investment in SLWM and biodiversity based livelihoods:</u>                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              | SLWM Enabling environment for SLWM practices with biodiversity considerations will ensure the sustainability of the agricultural practices and alternative livelihood options promoted in the baseline projects as well as consistency and coordination in natural resources management. In addition the demonstration pilots, a series of studies and/or land-use plans that incorporate biodiversity and ecosystem services valuation will be developed and adopted. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              | <u>Component 2 : Integrated forest-landscape management</u> : Promote integrated landscape management through local-level generation of renewable energy and planning of sustainable management for wood fuel landscape                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              | (i)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CCM will support the implementation of RE:Household alternatives to traditional approaches, resulting in reduced GHG emissions from charcoal production and use. This support will include technical and institutional capacity building besides technology transfer. Low carbon technologies such as improved cook stoves, biogas digesters, and small/micro hydropower will be disseminated This efforts in CCM will therefore decrease the pressures in forest. |                           |                        |                    |
|                                                                              | (ii)                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SFM will be key the above mentioned energy sources alternatives will be linked to the regeneration activities and sustainable forestry plans.                                                                                                                                                                                                                                                                                                                      |                           |                        |                    |
| <b>GEF alternative</b>                                                       | <b>GEF financing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |
|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>COUNTRY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Program Amount (a)</b> | <b>Agency Fee (b)2</b> | <b>Total c=a+b</b> |
|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Chad</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>\$2,557,942</b>        | <b>\$204,635</b>       | <b>\$2,762,577</b> |
|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Biodiversity                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \$374,556                 | \$29,964               | \$404,520          |
|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Climate Change                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$1,342,920               | \$107,434              | \$1,450,354        |
|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Land degradation                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$200,981                 | \$16,078               | \$217,059          |
|                                                                              | SFM                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$639,485                                                                                                                                                                                                                                                                                                                                                                                                                                                          | \$51,159                  | \$690,644              |                    |
| <b>Implementing body (if known)</b>                                          | National Body (to be determined)                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                        |                    |

[Tapez un texte]

| 3-CAMEROON –COMPREHENSIVE MANAGEMENT of NATURAL RESSOURCE in the LAKE CHAD BASIN |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                        |                    |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------|--------------------|
| <b>Project description</b>                                                       | <b>Project Objectives:</b> A comprehensive management of natural resources in the Lake Chad Basin - Cameroon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                        |                    |
|                                                                                  | <p><b>Expected Outputs and components</b></p> <p>The sustainable land use practices will be disseminate to contribute to addressing some of the concerns in land degradation while also ensuring national food security and will increase water flows to the Lake.</p> <p>The project will focus in <i>Investment in SLWM based livelihoods</i>:. For instance the clearing out of the Vrick channel undertaken under the baseline project PRODEBALT will be supported by disseminating bank protection and improvement of agriculture practices that will reduce soil erosion and promote water efficiency that will then contribute to increasing water flows to the lake, ensuring the maintenance of ecosystems.</p> |                           |                        |                    |
| <b>GEF alternative</b>                                                           | <b>GEF financing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                        |                    |
|                                                                                  | <b>COUNTRY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Program Amount (a)</b> | <b>Agency Fee (b)2</b> | <b>Total c=a+b</b> |
|                                                                                  | Land degradation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | \$1,479,952               | \$118,396              | \$1,598,348        |
| <b>Implementing body (if known)</b>                                              | National Body (to be determined)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                        |                    |

[Tapez un texte]

**4-NIGER –COMPREHENSIVE MANAGEMENT of NATURAL RESSOURCE in the LAKE CHAD BASIN**

| <b>Project description</b>          | <p><b>Project Objectives:</b> A comprehensive management of natural resources in the Lake Chad Basin - Niger</p> <p><b>Expected Outputs and components</b><br/> <u>Component 1: Investment in SLWM and biodiversity based livelihoods:</u><br/>           SLWM Enabling environment for SLWM practices with biodiversity considerations will ensure the sustainability of the agricultural practices and alternative livelihood options promoted in the baseline projects as well as consistency and coordination in natural resources management. In addition the demonstration pilots, a series of studies and/or land-use plans that incorporate biodiversity and ecosystem services valuation will be developed and adopted.</p> <p><u>Component 2 : Integrated forest-landscape management</u> : Promote integrated landscape management through local-level generation of renewable energy and planning of sustainable management for wood fuel landscape</p> <p>(i) CCM will support the implementation of RE:Household alternatives to traditional approaches, resulting in reduced GHG emissions from charcoal production and use. This support will include technical and institutional capacity building besides technology transfer. Low carbon technologies such as improved cook stoves, biogas digesters, and small/micro hydropower will be disseminated. Those efforts in CCM will therefore decrease the pressures in forest.</p> <p>(ii) SFM will be key the above mentioned energy sources alternatives will be linked to the regeneration activities and sustainable forestry plans.</p> |                  |                    |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|--|---------|--------------------|-----------------|-------------|--------------|--------------------|------------------|--------------------|--------------|-----------|----------|-----------|----------------|-----------|----------|-----------|------------------|-------------|-----------|-------------|-----|-----------|----------|-----------|
| <b>GEF alternative</b>              | <p><b>GEF financing</b></p> <table border="1"> <thead> <tr> <th>COUNTRY</th> <th>Program Amount (a)</th> <th>Agency Fee (b)2</th> <th>Total c=a+b</th> </tr> </thead> <tbody> <tr> <td><b>Niger</b></td> <td><b>\$3,288,782</b></td> <td><b>\$263,104</b></td> <td><b>\$3,551,886</b></td> </tr> <tr> <td>Biodiversity</td> <td>\$502,453</td> <td>\$40,197</td> <td>\$542,650</td> </tr> <tr> <td>Climate Change</td> <td>\$502,453</td> <td>\$40,196</td> <td>\$542,649</td> </tr> <tr> <td>Land degradation</td> <td>\$1,461,681</td> <td>\$116,935</td> <td>\$1,578,616</td> </tr> <tr> <td>SFM</td> <td>\$822,195</td> <td>\$65,776</td> <td>\$887,971</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                    |  | COUNTRY | Program Amount (a) | Agency Fee (b)2 | Total c=a+b | <b>Niger</b> | <b>\$3,288,782</b> | <b>\$263,104</b> | <b>\$3,551,886</b> | Biodiversity | \$502,453 | \$40,197 | \$542,650 | Climate Change | \$502,453 | \$40,196 | \$542,649 | Land degradation | \$1,461,681 | \$116,935 | \$1,578,616 | SFM | \$822,195 | \$65,776 | \$887,971 |
| COUNTRY                             | Program Amount (a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Agency Fee (b)2  | Total c=a+b        |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| <b>Niger</b>                        | <b>\$3,288,782</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>\$263,104</b> | <b>\$3,551,886</b> |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| Biodiversity                        | \$502,453                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$40,197         | \$542,650          |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| Climate Change                      | \$502,453                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$40,196         | \$542,649          |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| Land degradation                    | \$1,461,681                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$116,935        | \$1,578,616        |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| SFM                                 | \$822,195                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$65,776         | \$887,971          |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |
| <b>Implementing body (if known)</b> | National Body (to be determined)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |                    |  |         |                    |                 |             |              |                    |                  |                    |              |           |          |           |                |           |          |           |                  |             |           |             |     |           |          |           |



[Tapez un texte]

**5- NIGERIA –COMPREHENSIVE MANAGEMENT of NATURAL RESSOURCE in the LAKE CHAD BASIN**

**Project description** **Project Objectives:** A comprehensive management of natural resources in the Lake Chad Basin - Nigeria

**Expected Outputs and components**  
 The proposed program is focuses on the exploitation of renewable energy sources in Nigeria and measures for improved irrigation efficiency and water management to improve agriculture productivity

*Component 1: Investment in SLWM and biodiversity based livelihoods:* SLWM Enabling environment for SLWM practices with biodiversity considerations will ensure the sustainability of the agricultural practices and alternative livelihood options promoted in the baseline projects as well as consistency and coordination in natural resources management. In addition the demonstration pilots, a series of studies and/or land-use plans that incorporate biodiversity and ecosystem services valuation will be developed and adopted.

*Component 2 : Strengthening Energy alternatives (CCM – SFM) :* The objective of this component is to promote renewable energies through local-level generation of **renewable energy** and dissemination of best practices and technologies adoption. CCM will support the implementation of RE: household alternatives to traditional approaches, resulting in reduced GHG emissions from charcoal production and use. This support will include technical and institutional capacity building besides technology transfer. Low carbon technologies such as improved cook stoves, biogas digesters, and small/micro hydropower will be disseminated. Those efforts in CCM will therefore decrease the pressures in forest (Global Benefits), reduce the GHG and will increase well-being of the communities by reducing smoke, less wood to be carry on (local benefits).

*Component 3 Integrated forest management (SFM)* SFM will be key to ensure that the above mentioned energy sources alternatives are linked to the regeneration activities and sustainable forestry plans.

| GEF alternative | GEF financing    |                    |                  |                    |
|-----------------|------------------|--------------------|------------------|--------------------|
|                 | COUNTRY          | Program Amount (a) | Agency Fee (b)2  | Total c=a+b        |
|                 | <b>Nigeria</b>   | <b>\$4,141,429</b> | <b>\$331,315</b> | <b>\$4,472,744</b> |
|                 | Biodiversity     | \$456,775          | \$36,542         | \$493,317          |
|                 | Climate Change   | \$1,827,102        | \$146,168        | \$1,973,270        |
|                 | Land degradation | \$822,195          | \$65,776         | \$887,971          |
|                 | SFM              | \$1,035,357        | \$82,829         | \$1,118,186        |

**Implementing body (if known)** National Body (to be determined)

[Tapez un texte]

**6- CRA –COMPREHENSIVE MANAGEMENT of NATURAL RESSOURCE in the LAKE CHAD BASIN**

**Project description**      **Project Objectives:** A comprehensive management of natural resources in the Lake Chad Basin - CRA

**Expected Outputs and components**  
 CRA has allocated resources in the areas of biodiversity, climate change, land degradation and Sustainable forest management. The activities targeted at these focal areas are related to the minimization of the risks of climate change on the agricultural production and food security; the improved management of water resources, the conservation of forests and improved agroforestry techniques.

Through the development of SLWM practices the GEF increment will be able to ensure promotion and sustainability in the agricultural practices and technologies that will reduce soil erosion and increase water efficiency Investments for SLWM The project will follow the pilot community-based activities approach to mitigate climate change impact by promoting activities such as river bank restoration and protection, pond construction and maintenance, small-scale reforestation, tree nursery site establishment and tree planting.

SFM and CCM funds will be jointly fighting against pressures in forest. SFM will promote sustainable regeneration and forest and CCM the implementation of renewable energy household alternatives. Low carbon technologies such as improved cook stoves, biogas digesters, and small/micro hydropower will be disseminated This efforts in CCM will therefore decrease the pressures in forest

| GEF alternative                     | GEF financing                    |                    |                  |                    |
|-------------------------------------|----------------------------------|--------------------|------------------|--------------------|
|                                     | COUNTRY                          | Program Amount (a) | Agency Fee (b)2  | Total c=a+b        |
|                                     | <b>CRA</b>                       | <b>\$2,557,942</b> | <b>\$204,636</b> | <b>\$2,762,578</b> |
|                                     | Biodiversity                     | \$502,453          | \$40,197         | \$542,650          |
|                                     | Climate Change                   | \$502,453          | \$40,196         | \$542,649          |
|                                     | Land degradation                 | \$913,551          | \$73,084         | \$986,635          |
|                                     | SFM                              | \$639,485          | \$51,159         | \$690,644          |
| <b>Implementing body (if known)</b> | National Body (to be determined) |                    |                  |                    |