



**GOSE—UNDP Eritrea**  
**2019 & 2020 – Biennial Workplan and Budget**



**SOIL AND WATER CONSERVATION AND SUSTAINABLE ECOSYSTEM MANAGEMENT PROJECTS**

| Project name   | 2019             |                  |                  |                  | 2020             |                  |               |         | 2019+2020<br>Total Amount (US\$) |
|--|------------------|------------------|------------------|------------------|------------------|------------------|---------------|---------|----------------------------------|
|  | Amount (US\$)    |                  | Amount (US\$)    |                  | Amount (US\$)    |                  | Amount (US\$) |         |                                  |
|  | 3rd Qtr          | 4th Qtr          | 1st Qtr          | 2nd Qtr          | 3rd Qtr          | 4th Qtr          | 3rd Qtr       | 4th Qtr |                                  |
| 1. <i>Integrated Semenawi and Debubawi Bahri-Buri-Irrori- Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation, NORTHERN RED SEA, SOUTHERN RED SEA, MAEKEL &amp; ANSEBA</i> | 770,833          | 770,833          | 877,083          | 877,084          | 580,132          | 580,132          |               |         | <b>4,456,097</b>                 |
| 2. <i>Mainstreaming climate risk considerations in food security and IWRM in Tsilima Plain and upper catchment area. ZOBA DEBUB REGION</i>   | 536,000          | 536,000          | 1,100,750        | 1,100,750        | 1,200,750        | 1,200,750        |               |         | <b>5,675,000</b>                 |
| 3. <i>Restoring Degraded Forest Landscapes and Promoting Community-Based, Sustainable and Integrated Natural Resource Management in the Kora Habab Plateau, NORTHERN RED SEA REGION</i>                                  | 775,950          | 775,951          | 1,046,125        | 1,046,125        | 1,046,125        | 1,046,125        |               |         | <b>5,736,401</b>                 |
| <b>TOTAL/3 UNDP/GEF funded SWC and Sustainable Ecosystem Management Projects</b>   | <b>2,082,783</b> | <b>2,082,784</b> | <b>3,023,958</b> | <b>3,023,959</b> | <b>2,827,007</b> | <b>2,827,007</b> |               |         | <b>15,867,498</b>                |

|   |   |  |   |
|---|---|--|---|
| <b>Dr. Giorgis Teklemikael</b><br>Minister<br>Ministry of National Development  | <b>Ms. Susan Ngongi</b><br>Resident Coordinator<br>UN, Eritrea  | <b>Mr. James Wakiaga</b><br>Resident Representative<br>UNDP Eritrea  | <b>Woldemichael Abraha</b><br>Minister<br>Ministry of Local Government  |
| Signature<br><br> | Signature<br><br> | Signature<br><br> | Signature<br><br> |
| Date: 23/07/2019  | Date:   | Date: 23/7/19  | Date: 23/07/19  |

**INTEGRATED SEMENAWI AND DEBUBAWI BAHRI-IRRORI-HAWAKIL PROTECTED AREA SYSTEM FOR  
CONSERVATION OF BIODIVERSITY AND MITIGATION OF LAND DEGRADATION**

| Project name   | 2019          |            | 2020                   |                        |                        |                        | Total<br>Amount<br>(US\$) |
|--|---------------|------------|------------------------|------------------------|------------------------|------------------------|---------------------------|
|  | Amount (US\$) |            | Amount (US\$)          |                        |                        |                        |                           |
|  | 3rd<br>Qtr    | 4th<br>Qtr | 1 <sup>st</sup><br>Qtr | 2 <sup>nd</sup><br>Qtr | 3 <sup>rd</sup><br>Qtr | 4 <sup>th</sup><br>Qtr |                           |
| NRS <sup>1</sup> , SRS <sup>2</sup> , Maekel, Debub & Anseba   |               |            |                        |                        |                        |                        |                           |
| <i>Integrated Semenawi and Debubawi Bahri-Irrori- Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation, NORTHERN RED SEA, SOUTHERN RED SEA, MAEKEL &amp; ANSEBA</i> | 770,833       | 770,833    | 877,083                | 877,084                | 580,132                | 580,132                | 4,456,097                 |

**UNDP/GEF funded projects within the protected area systems by Zoba and activities**

| Project specific sites and activity  | NRS<br>(US\$) | SRS<br>(US\$) | Maekel<br>(US\$) | Anseba<br>(US\$) | Total<br>(2019+2020)<br>(US\$) |
|--|---------------|---------------|------------------|------------------|--------------------------------|
|  |               |               |                  |                  |                                |
| <b>CORE AREA OF THE PROTECTED AREA SYSTEMS WATERSHED CONSERVATION/CATCHMENT TREATMENT:</b>                       |               |               |                  |                  |                                |
| NRS/Sub-zoba Ghindare: Fishay-mirara, Tseret, Nefasit, Mai-habar, Ginda'e, Dengollo, Embakala, Leaten, Adishuma, | 1,382,763     |               |                  |                  | 1,382,763                      |
| <b>RESTORATION OF DEGRADED LAND/TERRACES CONSTRUCTION/SWC</b>  |               |               |                  |                  |                                |
| - Northern Red Sea (NRS): Embakala, Hutsit, Gahetlai   |               | 300,000       |                  |                  | 300,000                        |
| - Maekel: Hayella, Guritat, Qunzein, A'ien, Adengola   |               |               | 266,667          |                  | 266,667                        |
| <b>TERRACES CONSTRUCTION</b>   |               |               |                  |                  |                                |
| - Maekel: Gereml, geshnashim, Adkolom, Defere, Deki-Petros   |               |               | 106,667          |                  | 106,667                        |
| <b>MASONRY CHECK-DAM</b>   |               |               |                  |                  |                                |
| - Southern Red Sea (SRS): Romadda, Egroli, Debai-sima  |               | 600,000       |                  |                  | 600,000                        |

<sup>1</sup> Northern Red Sea Region

<sup>2</sup> Southern Red Sea Region

|  |                  |                |                |                |  |  |  |         |                  |
|--|------------------|----------------|----------------|----------------|--|--|--|---------|------------------|
| <b>LOOSE ROCK CHECK-DAM</b>  |                  |                |                |                |  |  |  |         |                  |
| - <i>Anseba: 3 sites in Gheleib</i>  |                  |                |                |                |  |  |  | 600,000 | 600,000          |
| <b>PONDS CONSTRUCTION</b>  |                  |                |                |                |  |  |  |         |                  |
| - <i>Northern Red Sea (NRS): Mai-habar, Huisi, Demus, Tseret Seredom, Ad-shinba, Fulgenata Dengolo-la'itai</i> | 1,200,000        |                |                |                |  |  |  |         | 1,200,000        |
| <b>Total</b>   | <b>2,882,763</b> | <b>600,000</b> | <b>373,334</b> | <b>600,000</b> |  |  |  |         | <b>4,456,097</b> |

### Biennial Work Plan

#### Period – 2019 & 2020

#### SPCF Outcome(s):

**By 2021:** Environmental and natural resources management is gender responsive and sustainable, negating the impacts of ecosystem degradation, climate change, and strengthening community resilience to disasters.

#### Expected Output (s):

- 1.1 Regulatory framework for protected areas management
- 1.2 National administration for protected areas management
- 1.3 National biodiversity conservation monitoring program
- 1.4 National strategy for protected area conservation and financing
- 1.5 National protected area regulatory implementation guidelines
- 1.6 National biodiversity conservation training program
- 2.1 Three new protected areas officially recognized and launched
- 2.2 Model training program implemented for protected area management and staff
- 2.3 Three model protected area management plans
- 2.4 Three model protected area business plans
- 2.5 Integrated and inclusive management mechanisms established
- 3.1 Farm/Fishing Field Schools established to build local SLM/SFM capacity
- 3.2 Sustainable resource management plans
- 3.3 Implementation of model ecosystem service conservation measures

#### Implementing Partner:

**Ministry of National Development and Ministry of Local Government**

**Brief Description**

The project goal is to ensure the integrity of Eritrea's diverse ecosystems in order to secure the viability of the nation's globally significant biodiversity. The project objective is to create policy and institutional conditions to operationalize the national protected area system.

As a young nation, Eritrea has yet to establish a contemporary system of protected areas. Eritrea hosts a wealth of globally significant biodiversity, including remnant populations of African wild ass, highland forests unique to the Horn of Africa, and an extensive, ecologically intact Red Sea marine environment. A national system of protected areas would contribute substantially to securing the long-term survival of Eritrea's globally significant biodiversity.

The project objective will be achieved through three outcomes: establishment of necessary protected area policy and institutional frameworks; emplacement of required protected area management capacity and experience; and, generation of SLM/SFM capacity required to restore/maintain ecosystem services required to support achievement of protected area conservation objectives.

The Project will support to set in place the basic elements required by policy makers, protected area managers, and rural communities to conserve large, ecologically viable terrestrial and marine areas. The immediate result will be an effective regime of national conservation areas covering nearly one million hectares of currently un-protected terrestrial and marine ecosystems.

|   |  |
|---|--|
| <p>Programme Period: 84 months</p> <p>Key Result Area (Strategic Plan): Mobilizing environmental financing</p> <p>Atlas Award ID:</p> <p>Project Start date: October 1, 2013</p> <p>Project End Date: October 1, 2020</p> <p>Management Arrangements: NIM</p> | <p><b>2019 &amp; 2020 Total allocated resources: US\$ 4,456,097</b></p> <p><b>2019 Total allocated resources: US\$ 1,541,667</b></p> <ul style="list-style-type: none"> <li>• UNDP Track: USD-----</li> <li>• GEF fund: US\$ 1,541,667</li> </ul> <p><b>2020 Total allocated resources: US\$ 2,914,430</b></p> <ul style="list-style-type: none"> <li>• UNDP Track: US\$-----</li> <li>• GEF fund: US\$ 2,914,430</li> </ul> <p>Government: In kind:</p> <ul style="list-style-type: none"> <li>- Office space and utilities</li> <li>- Technical experts at national and district levels</li> </ul> |
|---|--|

**2019-2020 Biennial Workplan: Integrated Sememawi and Debubawi Bahri-Buri-Irrori- Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation**

| Project Outcome/Output  | Main activity<br>Activities description  | Year | Quarterly budget allocation       |                                   |         | Total Amount (\$) | Activity allocation by Implementing Partner |
|---|--|------|-----------------------------------|-----------------------------------|---------|-------------------|---|
|   |  |      | 1 <sup>st</sup> & 2 <sup>nd</sup> | 3 <sup>rd</sup> & 4 <sup>th</sup> |         |                   |   |
| <b>OUTCOME 1: Establishment of protected area policy and institutional frameworks to operationalize national protected areas system</b> |  | 2019 | -                                 | -                                 | 75,000  |                   |   |
|   |  | 2020 | 55,000                            | 20,000                            | 75,000  |                   |   |
|   |  | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 20,000                            | -                                 | 20,000  |                   |   |
|   |  | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 5,000                             | -                                 | 5,000   |                   |   |
| <b>Output 1.1: Regulatory Framework for PA Management</b>   | PA Legislation/Policy development<br><br>Translation of the PA Legislation/policy and implementation guidelines to Tigrinya and Arabic   | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 5,000                             | -                                 | 5,000   | NRS/MOLG          |   |
|   |  | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | -                                 | 20,000                            | 20,000  | NRS/MOLG          |   |
| <b>Output 1.3: National Biodiversity conservation monitoring program</b>  | Procurement and installation of tools & equipment for biodiversity and ecosystem monitoring (water monitoring stations, tools to measure the status of grasslands, forests biodiversity, marine status and agricultural productivity)  | 2019 | -                                 | 20,000                            | 20,000  |                   |   |
|   |  | 2020 | 10,000                            | -                                 | 10,000  | NRS/MOLG          |   |
|   |  | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 10,000                            | -                                 | 10,000  | NRS/MOLG          |   |
| <b>Output 1.5: National PA regulatory implementation guidelines</b>   | Development & Implementation of national PA guidelines (tools to support implementation of PA regulatory framework)<br><br>Training of PA staff, line ministries staff and other relevant stakeholders on the implementation of national PA regulatory implementation guidelines | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 10,000                            | -                                 | 10,000  | NRS/MOLG          |   |
|   |  | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 10,000                            | -                                 | 10,000  | NRS/MOLG          |   |
| <b>Output 1.6: National biodiversity conservation training program</b>  | Vocational training program for PA staff   | 2019 | -                                 | -                                 | -       |                   |   |
|   |  | 2020 | 10,000                            | -                                 | 10,000  | NRS/MOLG          |   |
| <b>OUTCOME 2: Emplacement of Management capacity and experience required to operationalize national PA system</b>                       |  | 2019 | -                                 | 57,500                            | 57,500  |                   |   |
|   |  | 2020 | 55,000                            | 55,000                            | 110,000 |                   |   |
|   |  | 2019 | -                                 | -                                 | 167,500 |                   |   |
|   |  | 2020 | 55,000                            | 55,000                            | 110,000 |                   |   |

|   |   |      |           |           |           |           |         |             |          |
|---|---|------|-----------|-----------|-----------|-----------|---------|-------------|----------|
| Output 2.1: Three new PA officially recognized and launched   | Demarcation (mapping) of Buri Peninsula & Irrori/Hawakil Bay (867,000ha); Semienawi/Deubawi Bahri Greenbelt (129,000ha); Semienawi/Deubawi Bahri Greenbelt (Survey work, community consultation, transport, delineation of settlements etc) | 2019 | -         | -         | -         | -         | -       | NRS/MoLG    |          |
|   |   | 2020 | 10,000    | -         | -         | -         | 10,000  | -           | NRS/MoLG |
|   |   | 2019 | -         | 57,500    | -         | -         | 57,500  | -           | NRS/MoLG |
|   | Forest wardens (#40)  | 2020 | 35,000    | 45,000    | -         | 80,000    | -       | NRS/MoLG    |          |
| 2019  | -   | -    | -         | -         | -         | -         | -       | NRS/MoLG    |          |
| Output 2.2: Model training program implemented for PA Management and staff  | Implementation of the training plan for professional PA staff and Management  | 2020 | 5,000     | 5,000     | -         | 10,000    | -       | NRS/MoLG    |          |
| Output 2.3: Three Model PA Management Plans   | Development of Management plans for the 3 established PA  | 2019 | -         | -         | -         | -         | -       | NRS/MoLG    |          |
|   |   | 2020 | 5,000     | 5,000     | -         | 10,000    | -       | NRS/MoLG    |          |
| <b>OUTCOME 3: Generation of SLM/SFM capacity required to support national system of PA</b>  |   |      |           |           |           |           |         |             |          |
| Output 3.1: Farm/Fishing Field Schools established to build capacity of local communities around the established PA on SLM/SFM capacity | Establishment of 20 FFS (to include approx. 200 HHs each)   | 2019 | -         | 1,466,667 | 4,191,097 | -         | -       | NRS/MoLG    |          |
|   |   | 2020 | 1,636,667 | 1,087,763 | 1,466,667 | 2,724,430 | -       | NRS/MoLG    |          |
|   |   | 2019 | -         | -         | -         | -         | -       | -           | NRS/MoLG |
|   |   | 2020 | 12,500    | 12,500    | -         | 25,000    | -       | NRS/MoLG    |          |
| Output 3.1: Farm/Fishing Field Schools established to build capacity of local communities around the established PA on SLM/SFM capacity | Training sessions for the communities and FFS staff (5 training sessions targeting 200 farmers/training session in the 5 pilot FFS)   | 2019 | -         | -         | -         | -         | -       | NRS/MoLG    |          |
|   |   | 2020 | 5,000     | 5,000     | -         | 10,000    | -       | NRS/MoLG    |          |
|   |   | 2019 | -         | -         | -         | -         | -       | -           | NRS/MoLG |
|   |   | 2020 | 12,500    | 1,070,2   | -         | 1,070,263 | -       | NRS/MoLG    |          |
| Output 3.3.1: Implementation of model ecosystem service conservation measures   | Support implementation of SLM/SFM to rehabilitate degraded terrestrial and marine ecosystems as well as provision of alternative livelihoods to support the achievement of biodiversity conservation objectives in PA areas                 | 2019 | -         | -         | -         | -         | -       | NRS/MoLG    |          |
|   |   | 2020 | 300,000   | -         | -         | 300,000   | -       | NRS/MoLG    |          |
| Output 3.3.2: Implementation of soil and water conservation and sustainable ecosystem service management                                | Restoration of degraded land/SWC  | 2019 | -         | 266,667   | -         | 266,667   | -       | Maekei/MoLG |          |
|   |   | 2020 | -         | -         | -         | -         | -       | SRS         |          |
|   |   | 2019 | -         | 300,000   | -         | 300,000   | 300,000 | SRS         |          |
|   |   | 2020 | 300,000   | -         | -         | 300,000   | SRS     |             |          |
|   | Loose rock Check-dam  | 2020 | 300,000   | -         | -         | 300,000   | SRS     |             |          |

|   |      |         |         |               |                     |
|---|------|---------|---------|---------------|---------------------|
|   | 2019 | -       | 300,000 | 300,000       | Anseba/ MoLG        |
|   | 2020 | 300,000 | -       | 300,000       |                     |
| <b>Terraces Construction/SWC</b>                          | 2019 | -       | -       |               | <b>Maekel/ MoLG</b> |
|   | 2020 | 106,667 | -       | 106,667       |                     |
| <b>Ponds construction</b>                                 | 2019 | -       | 600,000 | 600,000       | <b>NRS/ MoLG</b>    |
|   | 2020 | 600,000 | -       | 600,000       |                     |
|   |      |         |         | <b>22,500</b> | <b>UNDP</b>         |
|   | 2019 |         | 7,500   | 7,500         |                     |
|   | 2020 | 7,500   | 7,500   | 15,000        |                     |
| <b>Monitoring and Evaluation &amp; Project management</b> |      |         |         |               |                     |

**MAINSTREAMING CLIMATE RISK CONSIDERATIONS IN FOOD SECURITY AND IWRM IN TSILIMA PLAIN  
AND UPPER CATCHMENT AREA**

| Project name   | 2019          |         |                     |                     | 2020                |                     |                     |                     | 2019+2020 |
|--|---------------|---------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|
|  | Amount (US\$) |         | Amount (US\$)       |                     | Amount (US\$)       |                     | Amount (US\$)       |                     |           |
|  | 3rd Qtr       | 4th Qtr | 1 <sup>st</sup> Qtr | 2 <sup>nd</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr |           |
| <b>ZOBA DEBUB REGION</b>   |               |         |                     |                     |                     |                     |                     |                     |           |
| Mainstreaming climate risk considerations in food security and IWRM in Tsilima Plain and upper catchment area. | 536,000       | 536,000 | 1,100,750           | 1,100,750           | 1,200,750           | 1,200,750           | 1,200,750           | 1,200,750           | 5,675,000 |

**Funded projects by activities (Source of fund: UNDP/GEF)**

| Project/Activity  | Total (2019+2020)<br>(US\$) |
|---|-----------------------------|
| Watershed conservation/Catchment treatment-Tsilima Plains/covering the whole sub-zoba Dbarwa:   |                             |
| <b>28 Mimbidar kebabis/82 villages:</b> Temojlla, Adi-bezehanes, Amadi, Deki-tsun'a, Ade-bizaghe, Adi-kubullo, Eliaba, Adi-gebrai, Zawil, Gerteti, Kisd-da'ero, Adi-sherefeto, Sniketi, Azaihe, Adi-felesti, Gula-ahfero, Demb-gu'uf, Adi-nahbai, Mai-dima, Mai—albo, Adeke-tekulo, Adi-Iogo, Adi-geba, Terd'omni, Talia, Gezalamza, Misilam, Mereb | 4,141,000                   |
| Catchment treatment: Tsilima Plains (Takitta—Diga-Warsai)   | 134,000                     |
| Masonry check-dam: Dgramereito, Adi-nefas, Mai-edaga, Ma'edo, Beitemaria, Adi-Quodo, Adi-adda (see annex for detail)  | 1,400,000                   |
| <b>Total Tsilima Plain and its environs/buffer zone</b>   | <b>5,675,000</b>            |



## Biennial Work Plan

Period — 2019-2020

### SPCF Outcome(s):

By 2021, environmental and natural resources management is gender responsive, and sustainable, negating the impacts of ecosystem degradation, climate change, and strengthening community resilience to disasters.

### Expected CP Outcome(s):

By 2021, environmental and natural resources management is gender responsive, and sustainable, negating the impacts of ecosystem degradation, climate change, and strengthening community resilience to disasters)

### Expected Output (s):

1.1 Development of Full-Sized Project document (PPG)

### Implementing Partner:

Ministry of Land, Water and Environment

| Brief Description  |
|--|
| <p><b>Brief project description:</b> The demand for agricultural production to supply food for a rapidly increasing population in the Central Highlands of Eritrea is placing pressure on land, forest and water resources through: i) expansion of agricultural land into natural habitats and ecosystems; ii) overgrazing and degradation of rangelands; and iii) unsustainable abstraction/pumping of groundwater. Furthermore, insecurity of tenure — as a result of the traditional <i>diessa</i> land tenure system — is a disincentive for farmers to implement long-term measures for soil and water conservation. Consequently, ecosystems continue to be degraded and therefore being compromised in their provision of the ecosystem goods and services that underpin community livelihoods. This results in reduced agricultural productivity, threatening the food security of local communities.</p> <p>Climate change poses additional threats to the functional integrity of ecosystems, local hydrology, agricultural productive systems and community livelihoods, particularly in the Tsilima region where the population pressures are particularly pronounced. More specifically, increased variations in rainfall, elevated temperatures and greater rates of evapotranspiration are likely to have direct impacts on run-off formation and groundwater recharge capacities of the ecosystems.</p> <p>The preferred solution is to reduce the climate change vulnerability of local communities in the Tsilima Region by: i) enhancing the capacity of government institutions and local communities to mainstream climate risks into research, policies and land-use planning; ii) implementing climate change adaptation interventions that increase the adaptive capacity of local communities; iii) promoting the implementation of on-farm and off-farm soil and water conservation measures; and iv) establishing a system for monitoring and evaluating the effectiveness of various approaches to climate change adaptation to inform a process of adaptive management. However, there are multiple institutional, technical and financial barriers to achieving the preferred solution, including: i) limited technical capacity and information available for the analysis of climate risks; ii) few incentives for investing in long-term, climate-smart measures; and iii) weak governance systems for the mainstreaming of climate risks into land-use planning and development.</p> <p>The LDCF-financed project will contribute to overcoming these barriers by: i) enhancing the capacity of academic and research institutions to conduct research and generate data to inform climate change and adaptation options; ii) increasing the technical capacity of relevant government departments to plan and implement adaptation interventions as well as provide climate-smart advice and extension services to local communities; iii) implementing integrated water management measures, climate-</p> |

smart agricultural and livestock practices, and watershed restoration measures; and iv) raising public awareness and training local communities on the benefits of an ecosystem-based approach to climate change adaptation.

Programme Period: 48 months  
 Key Result Area (Strategic Plan): Mobilizing environmental financing  
 Atlas Award ID:  
 Project Start date: June 2019  
 Project End Date: June 2022  
 Management Arrangements: NIM

2019-2020 Total allocated resources: USD 5,675,000  
 2019 Total allocation: US\$ 1,072,000  
 • UNDP Track: -----  
 • GEF fund: USD 1,072,000  
 2020 Total allocation: USD 4,603,000  
 • UNDP Track: -----  
 • GEF fund: USD 4,603,000  
 • Government: In kind:  
 - Office space and utilities  
 - Technical experts at national and district levels

**2019-2020 Biennial Workplan: Mainstreaming climate risk considerations in food security and IWRM in Tsilima Plain and upper catchment area**

| Project Outcome/Output  | Main activity | Year | Quarterly budget allocation       |                                   | Quarterly budget allocation |
|---|---------------|------|-----------------------------------|-----------------------------------|-----------------------------|
|   |               |      | 1 <sup>st</sup> & 2 <sup>nd</sup> | 3 <sup>rd</sup> & 4 <sup>th</sup> |                             |
| Outcome 1: Information on the impact of ecosystem degradation in aggravating vulnerability to climate change risks and reducing resilience of development gains understood and integrated into key decision-making processes. |               | 2019 | -                                 | -                                 | -                           |
|   |               | 2020 | 250,000                           | 250,000                           | 250,000                     |
| Outcome 1.1: Capacity of research institutions to undertake climate related research increased  |               |      |                                   |                                   |                             |

|  |  |      |           |           |           |
|--|--|------|-----------|-----------|-----------|
| <p>Output 1.1.3: Technical and financial support provided to NARI for conducting research and producing research outputs/products on CSA and production systems.</p>   | <ul style="list-style-type: none"> <li>- Develop local level research capacity through implementing research and training programmes relevant to CCA in the Tsilima Region together with academic and research institutions, including NARI, and MoA.</li> <li>- Facilitate the production and publication of research reports in an accessible form.</li> </ul>                                   | 2019 |           | 175,000   | 175,000   |
| <p>Output 1.1.4: Climate information and monitoring systems developed in association with relevant line ministries, the Meteorological Services Unit – and local communities.</p>                              | <ul style="list-style-type: none"> <li>- Provide training on meteorological observation and analysis to the MSU, other institutions and stakeholders involved in the collection and gathering of meteorological data.</li> <li>- Provide technical and financial support to the MSU and other stakeholders to facilitate the establishment of a community-based EWS in sub-Zoba Dbarwa.</li> </ul> | 2019 |           | 20,000    | 20,000    |
| <p><b>Outcome 1.2: Capacity of extension service institutions to provide knowledge-based climate-smart extension services to agriculture, livestock production and water management increased.</b></p>         |  |      |           |           |           |
| <p>Output 1.2.1: Capacity and resource needs assessment, development and training programmes implemented within institutions involved in extension services.</p>   | <ul style="list-style-type: none"> <li>- Conduct a needs assessment for CCA training (MOLWE and MoA)</li> <li>- Provide financial and technical support (computers and associated software, audio-visual equipment, GPS equipment, topographic survey equipment and software).</li> </ul>  | 2019 |           | 20,000    | 20,000    |
| <p>Output 1.2.2: Extension packages reviewed and updated to include best practices and climate-smart approaches.</p>   | <ul style="list-style-type: none"> <li>- Review and update the extension services package</li> <li>- Train extension agents on the revised extension packages, which will support the transition towards CSA and establish an effective working link with farmers.</li> </ul>  | 2019 |           | 25,000    | 25,000    |
| <p>Output 1.2.3: A long-term strategy developed and implemented for monitoring and evaluating climate-smart: i) water resources use and management; ii) crop productivity; and iii) livestock productivity</p> | <ul style="list-style-type: none"> <li>- Develop an M&amp;E methodology in pilot areas.</li> <li>- Train the community members, extension agents, NARI technical staff on the M&amp;E</li> <li>- Implement M&amp;E methodology and synthesise lessons learned and best practices.</li> </ul>   | 2019 |           | 10,000    | 10,000    |
| <p><b>Outcome 2: Climate-resilient land-use planning to support the adoption of climate-smart agricultural and ecological interventions.</b></p>   |  |      |           |           |           |
| <p><b>Outcome 2.1: Climate-resilient land use planning implemented over 9,000 hectares of the Tsilima Region.</b></p>  |  | 2019 |           | 1,061,500 | 5,379,500 |
| <p>Output 2.1.1: Based on the assessments undertaken in Output 2.2.1: i) identify and map drought and flood prone areas; and ii) develop</p>   |  | 2020 | 2,184,000 | 2,134,000 | 4,318,000 |
| <p>Generate maps identifying flood and drought prone areas under climate change conditions.</p>  |  | 2019 |           | 10,000    | 10,000    |

|  |  |              |        |         |         |
|--|--|--------------|--------|---------|---------|
| <p><i>and implement community-based land use and area development plans in the Tsilima Region.</i></p>   | <ul style="list-style-type: none"> <li>- Provide technical and financial support to undertake land capability classification, including a soil survey and soil chemical analyses.</li> <li>- Extension agents to assist communities in the development of climate-resilient land use and area development plans.</li> </ul>  | 2020         | 10,000 |         | 10,000  |
| <p><i>Output 2.1.2: Local communities strengthened, including inter alia Village Agricultural Committees, Water User Associations and Farmers' Associations to coordinate local level participation in climate change adaptation, land use and development planning.</i></p>               | <ul style="list-style-type: none"> <li>- Provide financial and technical support for the strengthening/establishment of Water User Associations, implement community by-laws for sustainable land, forestry and water resources management.</li> <li>- Hold training including exchange experiences for farmers</li> </ul>   | 2019<br>2020 | 5,000  | 5,000   | 10,000  |
| <p><b>Outcome 2.2: Integrated water management operationalised across the Tsilima Region, increasing water availability and land under irrigation.</b></p>   |  |              |        |         |         |
| <p><i>Output 2.2.1: Groundwater and surface water resources assessment undertaken and a groundwater monitoring strategy (including a system of data collection and information exchange on water use and projected demand) developed and implemented in the Upper Merub catchment.</i></p> | <ul style="list-style-type: none"> <li>- Undertake a groundwater and surface water resources assessment and develop a groundwater inventory.</li> <li>- Develop comprehensive water development and management plans based upon the ground and surface water resources assessment.</li> <li>- Purchase and installation of groundwater monitoring and stream gauge equipment.</li> <li>- Provide technical support to strengthen WRD's water resources information database and management system.</li> <li>- Provide training to WRD on the assessment and monitoring of groundwater resources</li> </ul>   | 2019<br>2020 | 20,000 | 20,000  | 40,000  |
| <p><i>Output 2.2.2: Hydro-meteorological stations established and/or refurbished at Mendefera, Dbarwa and Halhale.</i></p>   | <ul style="list-style-type: none"> <li>- Purchase and installation of new hydro-meteorological stations including: i) a Class 1 meteorological station at Mendefera; and ii) three Class 3 meteorological stations within the upper catchment.</li> <li>- Refurbish the existing Class 1 meteorological station at Halhale research station.</li> <li>- Provide training for technical staff from NARI, extension agents and other relevant institutions on data collection and record keeping.</li> <li>- Provide training to MSU on the interpretation of climate information and translation into locally relevant climate forecasts and early warnings.</li> </ul> | 2019<br>2020 |        | 175,000 | 175,000 |
| <p><i>Output 2.2.3: Climate-smart watershed restoration and management measures identified and implemented, including: i)</i></p>  |  | 2019         |        | 259,000 | 259,000 |

|  |   |                      |                            |                            |                            |
|--|---|----------------------|----------------------------|----------------------------|----------------------------|
| <p>water harvesting and storing interventions; ii) flood diversion and water spreading facilities; and iii) on-farm and off-farm soil and water conservation measures.</p>   | <ul style="list-style-type: none"> <li>- Promote rainwater harvesting by treating land surfaces to decrease infiltration and make runoff available for irrigation and other uses.</li> <li>- Develop and implement soil and water conservation measures within the Tsilima plain including inter alia: i) hillside terracing; ii) establishing 150 hectares of new enclosure areas and maintaining 200 existing permanent and seasonal enclosures; iii) planting of 1.2million indigenous and multi-purpose trees over an area covering 600 hectares of degraded land in the western mountain ranges of the upper catchment area; and iv) incorporation of multi-purpose trees in household woodlots and community enclosures.</li> <li>- Promote natural regeneration and reforestation of degraded watersheds through, inter alia: i) promoting agroforestry by planting ~17,500 seedlings on 300 hectares of farmland and in the upper catchment area; ii) using a mix of drought-resistant indigenous and fast-growing exotic species in community forestry initiatives;</li> <li>- iii) expanding enclosure areas; and iv) promoting enrichment planting and indigenous plants to fill gaps.</li> <li>- Establish and/or upgrade existing forestry nursery sites within sub-Zoba Dbarwa and NARI.</li> <li>- Train and engage local communities in the planning and design of: i) water harvesting and storing interventions; ii) flood diversion and water spreading facilities; and iii) on-farm and off-farm soil and water conservation measures.</li> </ul> | <p>2020</p>          | <p>921,500</p>             | <p>1,474,000</p>           | <p>2,395,500</p>           |
| <p>Output 2.2.4: Local communities and households trained to undertake sustainable water use and management, including inter alia water harvesting, construction and maintenance of hard and soft engineering interventions.</p> | <ul style="list-style-type: none"> <li>- Provide training to technical staff from the WRD and MoA – at Zoba and sub-Zoba levels on adaptation techniques and approaches that are specific to water management, including: Provide training for local communities, including farmer-farmer exchanges and visits to demonstration plots on the construction, operation and maintenance of watershed restoration measures and technologies.</li> </ul>   | <p>2019</p>          | <p>-</p>                   | <p>10,000</p>              | <p>10,000</p>              |
| <p>Output 2.2.4: Degraded land conserved, and land productivity increased</p>  | <ul style="list-style-type: none"> <li>- Masonry Check-dams construction</li> <li>- Catchment treatment</li> </ul>  | <p>2019<br/>2020</p> | <p>692,500<br/>692,500</p> | <p>692,500<br/>200,000</p> | <p>692,500<br/>892,500</p> |
| <p>Outcome 2.3: Increased food production through the implementation of climate-smart agricultural practices across the Tsilima Region.</p>  | <p>Outcome 2.3.1: Climate-smart agricultural practices – informed by research products generated under Output 1.1.3 and land use and area development plans prepared under Output 2.1.1 – developed</p>   | <p>2019</p>          | <p>-</p>                   | <p>100,000</p>             | <p>100,000</p>             |

|  |   |      |         |        |         |
|--|---|------|---------|--------|---------|
| <p>and transferred to farmers, including: i) drought- and disease-resistant varieties; ii) integrated crop-livestock production systems; iii) conservation agriculture; iv) agroforestry; v) silvopasture; and vi) rangeland and livestock management.</p>   | <ul style="list-style-type: none"> <li>i) planting faster maturing, drought- and disease-resistant tree species;</li> <li>ii) promoting integrated crop and livestock productivity systems;</li> <li>iii) promoting conservation agriculture;</li> <li>iv) promoting agroforestry;</li> <li>v) adopting improved rangeland management practices over 625 hectares of grazing land – including 360 hectares in the upper catchment area and 137.5 hectares in the lower catchment area;</li> <li>vi) promoting the conservation of native fodder and crop species;</li> <li>vii) introducing tree-planting campaigns; and</li> <li>viii) promoting rotational grazing, cut and carry, and reseeding of grasses to promote rangeland productivity.</li> </ul> <ul style="list-style-type: none"> <li>- Train local communities on the implementation and maintenance of CSA technologies and livestock production practices.</li> </ul> | 2020 | 335,000 |        | 335,000 |
| <p>Output 2.3.2: Alternative income-generating livelihoods identified and implemented in selected communities.</p>   | <ul style="list-style-type: none"> <li>- Identify and implement appropriate and specific income-generating activities.</li> <li>- Provide technical and financial support for implementation of selected income-generating activities: <ul style="list-style-type: none"> <li>i) expansion of irrigated agriculture, dairy and poultry farming; and apiculture;</li> <li>ii) introduction of multipurpose tree species into household's tree plots such as Rhamnus prinoides (Gesso), acacia and other fruit trees;</li> <li>iii) promotion of beekeeping; and</li> <li>iv) promotion of small stock.</li> </ul> </li> <li>- Provide training of community members on value-addition activities.</li> </ul>   | 2019 | 200,000 |        | 250,000 |
| <p><b>Outcome 3: Knowledge management, gender and awareness-raising</b></p>  |   | 2019 | -       | 3,000  | 3,000   |
|  |   | 2020 | 12,500  | 12,500 | 25,000  |
|  |   | 2020 |         |        |         |
| <p><b>Outcome 3.1: Increased monitoring, knowledge-sharing and awareness at Zoba, sub-Zoba, Kebabi and community levels on: i) climate change risks; ii) climate- and ecosystem-smart watershed restoration; iii) climate-smart agricultural technologies and measures; and iv) the sustainable use and management of natural resources.</b></p> |   | 2019 |         | 3,000  | 3,000   |
| <p>Output 3.1.1: Public awareness-raising and education campaigns conducted in the Tislima Region using all forms of media (including <i>inter alia</i> print, radio, art and drama)</p>   | <ul style="list-style-type: none"> <li>- Conduct a public awareness campaign to inform communities on the effects of climate change and benefits of appropriate CCA interventions.</li> </ul>   | 2020 | 4,000   | -      | 4,000   |

|   |   |              |       |       |        |
|---|---|--------------|-------|-------|--------|
|   |   |              |       |       |        |
|   | Organise local-level awareness-raising campaigns and training programs for farmers on lessons learned and best practices.   |              |       |       | 2,000  |
|   | Facilitate community consultations with policy-makers, the National Steering Committee and Project Technical Committee. Collate and synthesise lessons learned and best practices from project results, including the benefits of adaptation interventions.   | 4,000        |       |       | 4,000  |
|   | Update and extend the portfolio of training modules to include gender aspects associated with climate change.<br>Develop a gender strategy to strengthen the adaptive capacity of women to prepare for the adverse effects of climate change.<br>Document lessons learned on the experiences and coping strategies of women and men and the implications for future project and program design. | 2019<br>2020 | 7,500 | 7,500 | 15,000 |
|   |   |              |       |       | 17,500 |
|   |   | 2019         | -     | 7,500 | 7,500  |
|   |   | 2020         | 5,000 | 5,000 | 10,000 |
| <b>Monitoring and Evaluation &amp; Project Management</b> |   |              |       |       |        |

**RESTORING DEGRADED FOREST LANDSCAPES AND PROMOTING COMMUNITY-BASED, SUSTAINABLE AND INTEGRATED NATURAL RESOURCE MANAGEMENT IN THE RORA HABAB PLATEAU, ERITREA.**

| Project name  | 2019          |         | 2020                |                     |                     |                     | 2019+2020 |
|---|---------------|---------|---------------------|---------------------|---------------------|---------------------|-----------|
|   | Amount (US\$) |         | Amount (US\$)       |                     |                     |                     |           |
|   | 3rd Qtr       | 4th Qtr | 1 <sup>st</sup> Qtr | 2 <sup>nd</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr |           |
| NORTHERN RED SEA REGION<br>Restoring Degraded Forest Landscapes and Promoting Community-Based, Sustainable and Integrated Natural Resource Management in the Rora Habab Plateau, Eritrea. | 775,951       | 775,950 | 1,046,125           | 1,046,125           | 1,046,125           | 1,046,125           | 5,736,401 |

**Funded projects by activities (Source of fund: UNDP/GEF)**

| Project/Activity   | Total (2019+2020) (US\$) |
|--|--------------------------|
| Watershed conservation/Catchment treatment Nakfa/Rora Habab Plateau/covering the whole sub-zoba Nakfa:<br>11. <i>Minhidar kebabis/33 villages: Baqla, Maret, Endial, Laba, Mo'o (Lael), Ketema Nakfa 01, Ketema Nakfa 02, Beyan, Apollo, Agrae-Lael, Agrae Tahat</i> | 5,736,401                |

**Biennial Work Plan**

**Period -- 2019-2020**

**SPCF Outcome(s):** By 2021, environmental and natural resources management is gender responsive, and sustainable, negating the impacts of ecosystem degradation, climate change, and strengthening community resilience to disasters.

**Expected CP Outcome(s):** By 2021, environmental and natural resources management is gender responsive, and sustainable, negating the impacts of ecosystem degradation, climate change, and strengthening community resilience to disasters)



Expected Output (s):

Improved livelihood of rural communities through sustainable ecosystem management

Implementing Partner:

Ministry of National Development and Ministry of Local Government

Brief Description

**Project Objective: To mainstream sustainable land management, forestry and biodiversity conservation into land-use planning and agricultural production practices in Sub-Zoba Nakfa of the Northern Red Sea Region of Eritrea**

Eritrea is endowed with a variety of natural resources that have been declining as a result of human and natural disasters, including drought, deforestation and a prolonged 30-year war that ended in 1991. Biodiversity is critical to the livelihoods of the majority of the Eritrean people. Both wild plant and animal products are sources of fodder, medicines and income-generating activities, as well as building materials for the majority of poor rural households. Conserving biodiversity and its sustainable use are therefore a major concern. The loss of biodiversity, coupled with climate change and desertification, have consequently been identified in a recent GEF Country Portfolio Evaluation as the greatest challenges to sustainable development in Eritrea<sup>1</sup>.

The proposed GEF-financed project addresses a number of these environmental challenges, in particular ecosystem degradation, including land and soil degradation, forestry loss and watershed degradation. It also directly addresses a specific recommendation of the GEF Country Portfolio Evaluation – to address sustainable forest management-related concerns, including strengthening the capacity for forest tree restoration and reduction of forest deterioration.

Programme Period: 48 months

Key Result Area (Strategic Plan): Mobilizing environmental financing

Atlas Award ID:

Project Start date: June 2019

Project End Date: June 2023

Management Arrangements: NIM

2019 & 2020 Total allocated resources: US\$ 5,736,401

2019 Total allocation: US\$ 1,551,901

- UNDP Track: -----
- GEF fund: US\$1,551,901

2020 Total allocation: US\$ 4,184,500

- UNDP Track: -----
- GEF fund: US\$ 4,184,500
- Government: In kind:
  - Office space and utilities
  - Technical experts at national and district levels

**2019-2020 Biennial Workplan: Restoring Degraded Forest Landscapes and Promoting Community-Based, Sustainable and Integrated Natural Resource Management in the Rora Habab Plateau, Northern Red Sea Region**

| Project Outcome/Output  | Activities description  | Year | Quarterly budget allocation       |                                   |   | Total Amount (\$) |
|---|---|------|-----------------------------------|-----------------------------------|---|-------------------|
|   |   |      | 1 <sup>st</sup> & 2 <sup>nd</sup> | 3 <sup>rd</sup> & 4 <sup>th</sup> |   |                   |
| <b>Outcome 1: Institutional capacity and enabling framework for integrated landscape management in over 80,000 ha in the Nakfa sub-Zoba</b>   |   | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | 5,000                             | 20,000                            |   | 25,000            |
| <b>Outcome 1.2: Integrated decision-support tools to support multi-stakeholder participation in landscape and ecosystem restoration planning, implementation and monitoring.</b>  |   | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | 5,000                             | 5,000                             |   | 10,000            |
| <b>Output 1.1.1: Technical review and updates of existing legal instruments conducted to promote/incorporate sustainable use and conservation of forest and wildlife species into landscape restoration planning and implementation.</b>  | 1.1.1.2. Provide training and capacity building of technical officers and institutions on how to properly apply best practices when designing Integrated Natural Resource Management (INRM) approaches.<br><br>1.1.2.1. Develop an integrated landscape management plan for the Rora Habab Plateau, including detailed subplans focusing on watersheds, forestry, wildlife, rangelands and agricultural systems.  | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | -                                 | 15,000                            |   | 15,000            |
| <b>OUTCOME 2: Enhanced resilience of ecosystems and livelihoods through landscape regeneration and integrated watershed management in over 80,000 hectares/implementation of on-the-ground interventions to reduce land degradation and pressure on forests and increase agricultural productivity.</b> |   | 2019 | -                                 | 1,541,401                         |   | 1,541,401         |
|   |   | 2020 | 2,077,250                         | 2,054,750                         |   | 4,132,000         |
| <b>Output 2.1.1: Interventions to increase water availability and improve soil moisture implemented in the 5 kebabis.</b>   | 2.1.1.1. Undertake site investigations and hydrological analyses of potential locations for the implementation of integrated water management, soil and water conservation measures, including watershed restoration to capture water and increase the functioning of existing ponds and wadis.<br><br>2.1.1.2. Establish water conservation infrastructure (grey and green) for the control and harvesting of rain and flood water.<br><br>2.1.1.3. Develop community-level livestock and rangeland management systems to reduce overgrazing and improve productivity of rangelands.<br><br>2.1.1.4. Establish tree nurseries in Endial, Laba, Bakla and Nakfa<br><br>2.1.1.5. Train community members on tree management. | 2019 | -                                 | 10,000                            |   | 10,000            |
|   |   | 2020 | 250,000                           | 50,000                            |   | 50,000            |
|   |   | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | 5,000                             | 5,000                             |   | 10,000            |
|   |   | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | 100,000                           | 100,000                           |   | 200,000           |
|   |   | 2019 | -                                 | -                                 | - | -                 |
|   |   | 2020 | -                                 | -                                 | - | -                 |

|   |  |   |           |           |           |       |
|---|--|---|-----------|-----------|-----------|-------|
| <p><b>Output 2.1.4: Community-managed forest enclosures expanded through planting and assisted natural regeneration of indigenous and drought-resistant tree species, including the African Wild Olive (<i>Olea europaea</i> sub-species <i>Africana</i>), East African Juniper (<i>Juniperus procera</i>) and <i>Carissa edulis</i>.</b></p> | <p>2.1.4.1. Restore forest ecosystems through supplementary planting of trees as per technical standards and guidelines.</p>   | 2020  | 5,000     | 5,000     | 10,000    |       |
|   |  | 2019  | -         | 1,491,401 | 1,491,401 |       |
|   | <p>2.1.4.2. Train community members and extension staff on the management and sustainable use of woodlots and trees.</p>   | 2020  | 1,107,250 | 1,074,750 | 2,182,000 |       |
|   |  | 2019  | -         | -         | -         |       |
|   | <p>2.1.4.3. Establish a joint forest resource management network within the Rora Habab Plateau and surrounding areas/communities.</p>  | 2020  | 5,000     | 5,000     | 10,000    |       |
|   |  | 2019  | -         | -         | -         |       |
|   | <p>2.1.4.4 Support the procurement of energy-efficient stoves for use by households.</p>   | 2020  | 25,000    | 25,000    | 50,000    |       |
|   |  | 2019  | -         | -         | -         |       |
|   | <p><b>Outcome 3: Knowledge management and awareness raising</b></p>  |   |           |           |           |       |
|   | <p>Outcome 3.1 Increased knowledge sharing and awareness at Zoba, sub-Zoba, Kebabi and community levels on integrated landscape management, including SLM, SFM, biodiversity conservation and water resource management.</p> | <p>3.1.1.2. Organise local-level awareness-raising campaigns and training programs for farmers on lessons learned and best practices.</p> | 2019      | -         | 5,000     | 5,000 |
| 2020  |  |   | 5,000     | 5,000     | 10,000    |       |
| <p>Output 3.1.1: Communication, public awareness-raising and education campaigns conducted locally, with knowledge and best practices shared regionally and globally.</p>   | <p>3.1.1.5. Collate and synthesise lessons learned and best practices from project results, including the benefits of SLM interventions.</p>   | 2019  | -         | -         | -         |       |
|   |  | 2020  | -         | 5,000     | 5,000     |       |
| <p><b>Monitoring and Evaluation &amp; Project Management</b></p>  |  |   |           |           |           |       |
|   |  | 2019  | 5,000     | 5,500     | 5,500     |       |
|   |  | 2020  | 5,000     | 7,500     | 12,500    |       |
|   |  |   |           |           | 18,000    |       |

## Annex 1:

## Fully funded 2019/2020 Soil and Water Conservation and Sustainable Ecosystem Management Projects

| Sector  | Zoba                | Sub-zob                                       | Admin Area/Village                                | Project/Activity                   | Estimated Cost |            |           |         |
|---|---------------------|---|---|------------------------------------|----------------|------------|-----------|---------|
|   |                     |   |   |                                    | ERN            | US\$       |           |         |
| Agriculture   | Ma'ekel             | Serejeka                                      | Hayello   | Restoration of degraded land (SWC) |                |            |           |         |
|   |                     | Serejeka                                      | Gurtat  | Restoration of degraded land (SWC) |                |            |           |         |
|   |                     | Serejeka                                      | Quazein   | Restoration of degraded land (SWC) | 4,000,000      | 266,667    |           |         |
|   |                     | Serejeka                                      | Azlen   | Restoration of degraded land (SWC) |                |            |           |         |
|   |                     | Serejeka                                      | Adengoda  | Restoration of degraded land (SWC) |                |            |           |         |
|   |                     | Serejeka                                      | Geremi, geshnashim, Adikolom, Defere, Deki-Petros | Terraces construction              | 1,600,000      | 106,667    |           |         |
|   |                     | <i>Maekel total</i>                           |   |                                    |                |            | 5,600,010 | 373,334 |
|   |                     |   |   |                                    |                |            | 3,000,000 | 200,000 |
|   |                     |   |   |                                    |                |            | 3,000,000 | 200,000 |
|   |                     |   |   |                                    |                |            | 3,000,000 | 200,000 |
|   |                     |   |   |                                    |                | 3,000,000  | 200,000   |         |
|   |                     |   |   |                                    |                | 3,000,000  | 200,000   |         |
|   |                     |   |   |                                    |                | 3,000,000  | 200,000   |         |
|   |                     |   |   |                                    |                | 3,000,000  | 200,000   |         |
|   |                     |   |   |                                    |                | 2,010,000  | 134,000   |         |
|   | <i>Maekel total</i> |   |   |                                    |                | 25,010,010 | 1,634,334 |         |
|   | Debub               | Tsilima plain covering the whole sub-zoba: 28 |   |                                    |                |            |           |         |
| Mimhidar Kebabis/82 villages: Temajila, Adibezehanes, Amadr, Deki-tsun'a, Ade-bizaghe, Adi-kubullo, Elaba, Adi-gebrai, Zawil, Gerteti, Kisd-da'ero, Adi-sherefero, Shiketi, Azaihe, Adi-felesti, Gula-ahfera, Demb-gu'uf, Adinabai, Mai-dima, Mai—albo, Adeke-tekula, Adi-Ilogo, Adi-geda, Terá'anni, Talla, Gezalamza, Misilam, Merreb |                     |   | Catchment treatment                               | 62,115,000                         | 4,141,000      |            |           |         |
| <i>Debub total</i>  |                     |   |   |                                    | 85,125,000     | 5,675,000  |           |         |

| Agriculture |                                |   |   |                    |                   |
|-------------|--------------------------------|---|---|--------------------|-------------------|
|             |                                | <b>Anseba</b>   |   |                    |                   |
|             | Gheleb                         | Gheleb  | Loose Rock Check-dam (Diga Gheleb Gedim)      | 3,000,000          | 200,000           |
|             | Gheleb                         | Gheleb  | Loose Rock Check-dam (Diga Wedeg Alf)         | 3,000,000          | 200,000           |
|             | Gheleb                         | Gheleb  | Loose Rock Check-dam (Diga Marat)             | 3,000,000          | 200,000           |
|             | <b>Anseba total</b>            |   |   | <b>9,000,000</b>   | <b>600,000</b>    |
|             |                                | <b>SRS</b>  |   |                    |                   |
|             | Ma'ekel Dankalia               | Romodda   | Check-dam (Romodda)                           | 3,000,000          | 200,000           |
|             | Ara'eta                        | Egroll  | Check-dam (Egroll)                            | 3,000,000          | 200,000           |
|             | Debub Dankalia                 | Debai-sima  | Check-dam (Afambo)                            | 3,000,000          | 200,000           |
|             | <b>SRS total</b>               |   |   | <b>9,000,000</b>   | <b>600,000</b>    |
|             |                                | <b>NRS</b>  |   |                    |                   |
|             | Ghinda'e                       | Mai-habar   | Pond (Bahremba-Mai-habar)                     | 3,000,000          | 200,000           |
|             | Ghinda'e                       | Hutsit  | Pond construction (Hutsit)                    | 3,000,000          | 200,000           |
|             | Ghinda'e                       | Demas   | Pond construction (Arbien-Demas)              | 3,000,000          | 200,000           |
|             | Ghinda'e                       | Seredom   | Pond construction (Tseret Seredom)            | 3,000,000          | 200,000           |
|             | Shieb                          | Ad-shuma  | Pond construction (Arbebi/Adi-shuma)          | 3,000,000          | 200,000           |
|             | Ghinda'e                       | Dengolo-la'elai   | Pond construction (Falghenda-Dengolo-la'elai) | 3,000,000          | 200,000           |
|             | Ghinda'e                       | Embakkala   | Terraces construction                         | 1,500,000          | 100,000           |
|             | Ghinda'e                       | Hutsit  | Terraces construction                         | 1,500,000          | 100,000           |
|             | Ghinda'e                       | Gahtellai   | Terraces construction                         | 1,500,000          | 100,000           |
|             | Ghinda'e                       | <b>All kebabi mimhidars/villages in Ghinda'e watershed system: Fishay-mirara, Tseret, Nefasit, Mai-habar, Ginda'e, Dengollo, Embatkala, Leaiten, Adishuma</b>   |   | <b>20,741,445</b>  | <b>1,382,763</b>  |
|             | Nakfa                          | <b>All Kebabi Mimhidars/All villages within Nakfa sub-zoba: (11 Mimhidar kebabis/33 villages): Baqla, Maret, Endial, Laba, Mo'o (La'el), Ketema Nakfa 01, Ketema Nakfa 02, Beyan, Apollo, Agrae-lael, Agrae Tahat</b> |   | <b>86,046,015</b>  | <b>5,736,401</b>  |
|             | <b>NRS total</b>               |   |   | <b>129,287,450</b> | <b>8,619,164</b>  |
|             | <b>Total Funding 2019/2020</b> |   |   | <b>206,512,460</b> | <b>15,867,498</b> |

## Annex2: Unfunded/Resource to be mobilized—Soil and Water Conservation Projects

| Sector      | Zoba       | Sub-zob            | Admin Area/Village                | Project/Activity            | Estimated Cost                          |           |                   |                  |
|-------------|------------|--------------------|-----------------------------------|-----------------------------|---|-----------|-------------------|------------------|
|             |            |                    |                                   |                             | ERN                                     | US\$      |                   |                  |
| Agriculture | Debab      | Tsorena            | Dekitafai                         | Masonry check-dam           | 1,831,360                               | 122,091   |                   |                  |
|             |            | Segehneti          | Adi-hadida                        | Masonry check-dam           | 3,000,000                               | 200,000   |                   |                  |
|             |            | Areza              | Deki-werazi                       | Masonry check-dam           | 3,000,000                               | 200,000   |                   |                  |
|             |            | Adi-quala          | Enda-giorgis                      | Soil and water conservation | 3,000,000                               | 200,000   |                   |                  |
|             |            | Mai-aini           | Teklabi                           | Soil and water conservation | 2,946,360                               | 196,424   |                   |                  |
|             |            | Mai-dima           | Mai-dima                          | 3 Masonry Check-dams        | 4,500,000                               | 300,000   |                   |                  |
|             |            | <i>Debab total</i> |                                   |                             |   |           | <i>18,777,720</i> | <i>1,218,515</i> |
|             |            |                    | Hallhal                           | Melebso                     | 1 loose rock Check-dam                  | 3,000,000 | 200,000           |                  |
|             |            |                    | Keren                             | Adirde                      | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Keren                             | Keren                       | Loose rock Check-dam (Diga Tinkulchias) | 3,000,000 | 200,000           |                  |
|             |            |                    | Keren                             | Keren                       | Loose rock Check-dam (Diga Dighi)       | 3,000,000 | 200,000           |                  |
|             |            |                    | Hamelmallo                        | Hamelmallo                  | Loose rock Check-dam (Diga Gizgiza)     | 3,000,000 | 200,000           |                  |
|             |            |                    | Hallhal                           | Ad-hzbai                    | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Hallhal                           | Mai-awald                   | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Hallhal                           | Enrukubet                   | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Ad-tekelezan                      | Deki-zerfu                  | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Ad-tekelezan                      | Ledibabo                    | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Asmat                             | Shezeji                     | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Elaber'ed                         | Adi-tafia-Dembe-habteiston  | Loose rock Check-dam                    | 3,000,000 | 200,000           |                  |
|             |            |                    | Elaber'ed                         | Elaber'ed                   | Loose rock Check-dam (Diga gherchuk)    | 3,000,000 | 200,000           |                  |
|             | Elaber'ed  | Elaber'ed          | Loose rock Check-dam (Diga-ssahu) | 3,000,000                   | 200,000                                 |           |                   |                  |
|             | Hamelmallo | Ajerbeb            | Loose rock Check-dam              | 3,000,000                   | 200,000                                 |           |                   |                  |
|             | Keren      | Waliku             | Loose rock Check-dam              | 3,000,000                   | 200,000                                 |           |                   |                  |

|     |  |                |   |                    |                   |
|-----|--|----------------|---|--------------------|-------------------|
|     | Asmat  | Tefertja/Wanki | Loose rock Check-dam                      | 3,000,000          | 200,000           |
|     | Asmat  | Asmat          | Loose rock Check-dam (Diga Sheka Weyreit) | 3,000,000          | 200,000           |
|     | Habero   | Habero         | Loose rock Check-dam (Diga Habero-Tsaded) | 3,000,000          | 200,000           |
|     | Hannelmallo                                    | Kebabi-ahaba   | Loose rock Check-dam                      | 3,000,000          | 200,000           |
|     | <i>Anseba total</i>                            |                |   | <i>63,000,000</i>  | <i>4,200,000</i>  |
|     | Debub Dankalia                                 | Alalje         | Check-dam (matebele)                      | 3,000,000          | 200,000           |
| SRS | SRS total                                      |                |   | 3,000,000          | 200,000           |
|     | Ghinda   | Belareza       | 15 Masonary check-dams                    | 45,000,000         | 3,000,000         |
| NRS | <i>NRS total</i>                               |                |   | <i>45,000,000</i>  | <i>3,000,000</i>  |
|     | Mensura  | Gulla          | Check-dam (Gulla)                         | 2,865,032          | 191,002           |
|     | Gulij  | Mengulla       | Masonry Check-dam (Mengulla)              | 2,743,168          | 182,878           |
|     | Mensura  | Tinsh'itai     | Check-dam (Hambigulle)                    | 3,644,836          | 242,989           |
|     | Barentu  | Kerkasha       | Masonry Check-dam (@ Raba-Terkib)         | 3,062,649          | 204,177           |
|     | Mulki  | Tsibuk-giral   | Masonry Check-dam (Tsibuk-giral)          | 3,800,000          | 253,333           |
|     | Mogollo  | Terkina        | Diversion canal maintenance (Adrugay)     | 4,287,930          | 285,862           |
|     | Mogollo  | Mogollo        | Diversion canal maintenance (Barharar)    | 4,529,582          | 301,972           |
|     | Gulij  | Dereisa        | Diversion canal maintenance (Dereisa)     | 4,727,580          | 315,172           |
|     | Sela   | Rkeb           | Diversion canal maintenance (Kentertai)   | 3,986,960          | 265,797           |
|     | Haikota  | Hashenkiti     | Diversion canal maintenance (Hashenkiti)  | 4,538,750          | 302,583           |
|     | Forto  | Forto          | Diversion canal maintenance (Ashadda)     | 4,529,583          | 301,972           |
|     | Gogne  | Guchi          | Diversion canal maintenance (Guchi)       | 4,865,039          | 324,336           |
|     | <i>Gash-Barka total</i>                        |                |   | <i>47,581,110</i>  | <i>3,172,074</i>  |
|     | <i>Total unfundel/Resource to be mobilized</i> |                |   | <i>173,858,830</i> | <i>11,590,589</i> |