[Status –SUMAMAD-Phase-2]

Template Narrative Progress Report

for the 22nd FUST Steering Committee Meeting

10 October 2013

(Prepared: 30 September 2013)

Project Title: Sustainable Management of Marginal Drylands (SUMAMAD) – Phase 2

Target Country or Region: Africa, Arab States, Asia, Europe, Latin America (Belgium, Bolivia, Burkina Faso, China, Egypt, India, Iran, Jordan, Pakistan, Tunisia)

Budget code: 513/GLO/2017

Contract number:

Funding sources: Flemish Government of Belgium

Total Budget approved: US$ 1,480,050 (incl. 10% overhead costs)

Reporting Period: June 2012 to June 2013

Executing Agency: UNESCO

Implementing partners: UNESCO Headquarters (Division of Ecological and Earth Sciences and its MAB Programme), in cooperation with the United Nations University – Institute for Water, Environment and Health (UNU-INWEH)

Project starting date: April 2009 (date of project approval)

Project completion date: 30 July 2014

Responsible Sector: UNESCO Science Sector

Name of Persons completing Report: Miguel Clüsener-Godt (Chief, SC/EES/ESB).

1. Summary and Background:

Based on the work already carried out during the first phase of the SUMAMAD Project (2004-2007), the general purpose of the second phase of the project is to conduct research and application-oriented sciences in the following three inter-related fields:

(1) Fostering scientific drylands research:

* Improvement of dryland agriculture (crop and livestock production) through the sustainable use of natural resources focusing on sustainable water conservation and harvesting practices;
* Restoration and rehabilitation of degraded drylands focusing on biodiversity conservation and sustainable use of natural biotic resources.

(2) Preparation of policy-relevant guidelines for decision-makers in drylands:

* Developing scenarios for land-use changes (also in the context of climate change) including the assessment of trade-offs and economic valuation of dryland services;
* Interfacing with relevant policy-formulation institutions and processes in the respective countries.

(3) Promoting sustainable livelihoods in drylands:

* Encouraging alternative income-generating activities - diversification of economic options, such as ecotourism, handicraft production, forages, medicines, dietary diversification, in order to reduce dependencies on traditional dryland agriculture.

A cross-cutting objective is to strengthen capacity-building in all study sites through training schemes on environmental research and conservation, study visits among field project partners, and environmental education in formal and non-formal contexts (such as using the UNESCO Teaching Resource Kit for Dryland Countries).

The following countries, scientific institutions and biosphere reserves are involved in the SUMAMAD Project:

*Belgium:* University of Ghent and K.U. Leuven University.

*Bolivia:* Universidad Mayor de San Andres, La Paz.

*Burkina Faso:* National Centre for Scientific and Technological Research (CNRST) and MAB National Committee.

*China*: Institute of Botany at the Chinese Academy of Sciences with MAB National Committee;

*Egypt*: University of Alexandria and Omayed Biosphere Reserve.

*India* Central Arid Zone Research Institute (CAZRI).

*I.R. Iran*: Research Society for Sustainable Rehabilitation of Drylands (REaSSURED), in collaboration with Fars Research Centre for Agriculture and Natural Resources (FRCANR).

*Jordan*: Royal Society for the Conservation of Nature (RSCN).

*Pakistan*: Pakistan Council of Research in Water Resources (PCRWR).

*Tunisia*: Institut des Régions Arides de Médenine (IRA).

In addition, the United Nations University – Institute for Water, Environment and Health (UNU-INWEH) collaborates with UNESCO in the implementation of the Project.

Before the first phase of the SUMAMAD Project was approved for funding by the Flemish Government of Belgium in spring 2004, several preparatory meetings/workshops were held. Moreover, the following international SUMAMAD Project Workshops have been organized as follows:

(1) May 2002: Project Preparatory Meeting held at UNESCO Headquarters (Paris, France) with UNESCO, UNU and ICARDA; this meeting resulted in the selection of project sites and scientific partner institutions in the participating countries.

(2) September 2002: The First International Workshop on “Sustainable Management of Marginal Drylands – Application of Indigenous Knowledge for Coastal Drylands” held in Cairo and Alexandria (Egypt). The workshop was also attended by Belgian scientists from K.U. Leuven and Ghent University. The proceedings were published by UNU (UNU Desertification Series No. 5).

(3) February 2003: Project working meeting among UNESCO, UNU and ICARDA at the 3rd World Water Conference in Kyoto (Japan). At this meeting it was decided that – in order to keep the “project momentum” until extra-budgetary support was secured by the Flemish Government of Belgium - UNU provides grants to the SUMAMAD Project countries in 2003 to carry out research work and to make site-specific project assessments, and that UNESCO funds and organizes the first SUMAMAD Project Workshop in Iran later in the year.

(4) November/December 2003: The Second International Project Workshop on Sustainable Management of Marginal Drylands (SUMAMAD) was held in Shiraz (Iran) with all project partners including Belgian scientists and a representative of the Belgian Government of Flanders. SUMAMAD countries presented their site-specific assessment reports. The proceedings were published by UNESCO (UNESCO-MAB Drylands Series No. 3).

(5) December 2004: The **Third International Project Workshop** on Sustainable Management of Marginal Drylands (SUMAMAD) was held in Djerba (Tunisia) in collaboration with the Institut des Régions Arides (IRA) and included a field trip to various project related sites in Medenine area. The workshop proceedings have been published by UNESCO in October 2005. Unfortunately, the SUMAMAD project partner from Pakistan was not able to attend the workshop due to visa problems.

(6) Originally scheduled for November 2005, the **Fourth International SUMAMAD Project Workshop** had to be postponed to 2006 due to the devastating earthquake that affected the country in early October 2005. Accordingly, the Fourth International Project Workshop on Sustainable Management of Marginal Drylands (SUMAMAD) took place in Islamabad (Pakistan) in collaboration with Pakistan Council for Research into Water Resources (PCRWR) and included a field trip to Cholistan desert and to Lal Suhanra Biosphere Reserve. Unfortunately, the two Chinese project partners and the Uzbek project partner were unable to attend due to illness. Moreover, the Iranian project partner could not attend due to passport/visa problems. The workshop proceedings have been published by PCRWR and are also available in pdf format on the SUMAMAD website at

 <http://unesdoc.unesco.org/images/0014/001473/147306E.pdf> .

(7)The **Fifth International SUMAMAD Project Workshop** has been held in Aleppo (Syria) from 13 to 16 November 2006, and was hosted by ICARDA. With the exception of the Belgian and Pakistani SUMAMAD partners, representatives from all other project sites attended the meeting. The workshop proceedings have been printed and distributed.

(8) The **Sixth International SUMAMAD Project Workshop** has been held in Xilinhot City and Zenglan Banner (China) from 6 to 12 September 2007 and was hosted by Prof Jiang Gaoming of the Chinese Academy of Sciences. All SUMAMAD team leaders were present. A field trip was organized to the Xilingol Biosphere Reserve and to the Hunshandake sandlands area. No workshop proceedings emanated from this workshop, as the final SUMAMAD Publication (available at

 <http://unesdoc.unesco.org/images/0016/001609/160924E.pdf>) summarized project results since the start of the project.

(9) From 3 – 6 June 2008, a “**Planning Workshop** for the Preparation of the **Second Phase of SUMAMAD**” has been held in Amman (Jordan). It was hosted by the Royal Society for the Conservation of Nature (RSCN) and included a field trip to Dana Biosphere Reserve. The workshop was instrumental for the preparation of the Project Document for the Second Phase of SUMAMAD. The workshop report is available on the SUMAMAD website at

 <http://www.unesco.org/mab/doc/drylands/Sum_secondphase_jordan.pdf> .

(10) UNESCO Headquarters, in collaboration with the UNESCO-New Delhi Office and India’s Central Arid Zone Research Institute (CAZRI), organized the **Seventh International SUMAMAD Project Workshop** in Jodhpur, Rajasthan (India) from 22 – 23 November 2009. This international workshop was the first one of its kind during the second phase of the project. With the exception of the Jordanian and Pakistani SUMAMAD partners, representatives from all other project sites attended the meeting. This workshop was held in conjunction with CAZRI’s international conference on “Nurturing Arid Zones for People and The Environment: Issues and Agenda for the 21st Century” which was held in Jodhpur from 24 – 28 November 2009 so that SUMAMAD project scientists could attend the CAZRI conference. Workshop proceedings were not published, as the workshop was held shortly after the launch of project phase 2, and project partners did not feel that there were sufficient results to justify a publication at this stage. The workshop report is available on the SUMAMAD website at

 <http://www.unesco.org/science/doc/mab/IndiaWorkshopReport.pdf>.

(11) UNESCO Headquarters, in collaboration with the UNESCO-Cairo Office, organized the **Eighth International SUMAMAD Project Workshop** in Alexandria (Egypt) from 6 – 9 November 2010 at the *Bibliotheca Alexandrina*, which was held back-to-back with the “First Students’ Sciences Conference” focusing on the theme of biodiversity. The SUMAMAD workshop and the conference were organized by the Egyptian SUMAMAD team leader, Prof. Boshra Salem. A one-day field trip was organized to Omayed Biosphere Reserve. Due to visa problems, team leaders from China, Iran and Tunisia were unable to attend the workshop.

1. Description of project activities undertaken during the reporting period

Activities carried out from June 2012 to June 2013:

* As requested by the SUMAMAD workshop participants at the **Ninth International SUMAMAD Workshop** (Bobo Dioulasso, Burkina Faso, 14-19 December 2011), UNESCO compiled, edited and published the **workshop report**, which has been put on-line on the UNESCO SUMAMAD website at

<http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/sc-9th_International_SUMAMAD_Workshop_Report_Burkina_Faso_Dec_2011_web.pdf>.

* Moreover, UNESCO compiled, edited and published the **workshop proceedings** of the Ninth International SUMAMAD Workshop (Bobo Dioulasso, Burkina Faso), which informs on 2011 SUMAMAD project activities. The proceedings are available in electronic format on-line at the UNESCO SUMAMAD website (see

<http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/specific-ecosystems/drylands-desertification/sumamad/publications/proceeding-of-the-ninth-sumamad-workshop/>).

The workshop proceedings have been diffused to all SUMAMAD project partners.

* Following a preparatory mission of Prof. Donald Gabriels (Belgium) to Bolivia in 2012, the Tenth International SUMAMAD Project Workshop has been held in La Paz (Bolivia), which has been organized by UNESCO in collaboration with the team leader of the SUMAMAD field project in Bolivia. In addition to the SUMAMAD project scientists from Belgium, Bolivia, Burkina Faso, China, Egypt, India, Jordan, Pakistan and Tunisia, and international organizations including the United Nations University and the United Nations Convention to Combat Desertification, special guests from Bolivia included Dr. Alfredo Rada, Vice-Ministry of Consular Affairs; Prof. Eduardo Oviedo, Dean of Faculty of Agronomy, Universidad Mayor de San Andres; and Mr. Ronald Barrancos, Secretary-General of the Bolivian National Commission for UNESCO. Workshop participants were treated to a number of field visits. A field trip to the Bolivian SUMAMAD project site in the Patacamya village in the Bolivian Altiplano took place on 14 November. The project focuses on establishing demonstration plots in collaboration with local communities for quinoa production under different regimes of rain-fed and deficit irrigation and different loads of manure inputs. During the same trip, participants were given the opportunity to visit Lake Titicaca, famous for being the highest navigable lake in the world. Participants also had the opportunity to visit the Moon Valley situated about 10 kilometres from downtown [La Paz](http://en.wikipedia.org/wiki/La_Paz), and to visit the city of La Paz.

It was decided that the Eleventh Final International SUMAMAD Project Workshop will be held on 19 June 2013 in conjunction with the international DESERTLAND Conference (17 – 18 June 2013) in Ghent (Belgium) with a view to observer World Day on Desertification on 17 June.

The workshop also decided that the final publication of the SUMAMAD Project will be produced during the first half year of 2013, accompanied by a succinct policy brief for decision-makers. The workshop report of the Tenth International SUMAMAD Project will be available on the SUMAMAD website.

* Funding for SUMAMAD-2 project activities in 2013 were being disbursed to the team leaders of the SUMAMAD Project in collaboration with UNU-INWEH.
* The overall SUMAMAD website has been refined and updated (see <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/specific-ecosystems/drylands-desertification/sumamad>
* A webpage for every case study has been created including information about the main objectives of the project, study area and activities carried out during the Second Phase of the Project.
1. Difficulties and Problems encountered and measures taken, any changes in implementation

Apart from the fact that the Iranian team leader of the SUMAMAD project had problems at his travel back after attending the Tenth International SUMAMAD Project Workshop in Bolivia due to visa problems, no difficulties and problems have been encountered. The project continues to be in full swing.

1. Project Results achieved during the reporting period

See Section II above.

1. Lessons learned and Sustainability

As reported in the past, the project is deemed sustainable as all project partners are embedded in university or other research institutional settings that will continue beyond the ending of the SUMAMAD Project. Hence, research results will be utilized on a long-term basis.

1. Evaluation recommendations when applicable

The final report and publication of the SUMAMAD-2 Project Phase will contain a number of site-specific recommendations as well as overall recommendations to improve the sustainable development of drylands at large.

1. Visibility: describe any visibility action implemented during the reporting period

Thanks to the SUMAMAD Project, Professor Boshra Salem was elected Women in Science Hall of Fame 2013. For more information, please see the email attached and the link:

<http://egypt.usembassy.gov/wshf_2013_bios.html#cairo>

Dr Magali Garcia Cardenas has been awarded with the Marie Curie prize for women in sciences (<http://www.aciencias.org.bo/node/789>), specifically for the technological development with the QUINAGUA-SUMAMAD project on quinoa cultivation.

1. Work plan for the following period (please complete the attached table and when applicable add an eventual budget revision)

See Annual Workplan and Table with SUMAMAD 2013 Activities below.

1. Annexes (publications, reports and other project outputs, when applicable)
* Ninth International SUMAMAD Project Report (see <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/sc-9th_International_SUMAMAD_Workshop_Report_Burkina_Faso_Dec_2011_web.pdf>)
* Ninth International SUMAMAD Project Workshop Proceedings (see <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/specific-ecosystems/drylands-desertification/sumamad/publications/Proceeding_of_the_Ninth_SUMAMAD_Workshop>).

#### Annual Workplan

Project Code and Title: 513/GLO/2017 "SUMAMAD-2 Project"

Year: 2013/2014

|  |  |  |  |
| --- | --- | --- | --- |
| Planned Activities  | Expected Outputs | TimeframeFrom To | Responsible Party |
| 3 Final SUMAMAD Publications | “Final SUMAMAD Publication – Phase 2”“Policy Brief for Decision-Makers” “Leaflets”  | Jan 2014 | June2014 | UNESCO Headquarters, UNU-INWEH  |
| Organization of SUMAMAD Policy brief event Sweden Jun 2014 | Launch of the three interrelated publications | Jan 2014 | June 2014 | UNESCO Headquarters, UNU-INWEH |

**Annex 1: Outline for 3 Final SUMAMAD Publications**

(as agreed upon at the 10th SUMAMAD Workshop in La Paz, Bolivia)

1. Three interrelated publications are envisaged for the SUMAMAD Project as follows:

(1) “Final SUMAMAD Publication – Phase 2”: Compilation of scientific results

Lead for editing: UNESCO

(2) “Policy Brief for Decision-Makers”

Lead: UNU-INWEH

(3) “Leaflets” (4 pages) in 6 languages (one per project site)

All publications should be available on 17 June 2013 (*World Desertification Day*, conference in Ghent)

1.1 Regarding the **Final SUMAMAD Publications-Phase 2**, the following structure is proposed:

Table of contents:

Preface (1 page) *[to be prepared by UNESCO]*

Executive summary (5 pages) *[to be prepared by UNESCO and UNU-INWEH] with d*escriptions and Outputs of Field Projects)

Individual Project Sites (14 – 15 pages per project site) *[to be prepared by SUMAMAD team leaders]*

- Main dryland challenges at the project site (with environmental and socio-economic characteristics of project site) (2 pages)

- Improved dryland agriculture and rehabilitation of degraded areas and results (2-3 pages)

- Scenarios for future land-use changes under climate change and results 2-3 pages)

- Ensuring sustainable livelihoods through alternative income-generating activities and results (2-3 pages)

- Recommendations for sustainable dryland management (2 pages) *[note: this section will serve as the basis for the Policy Brief]*

- Research institution and team composition

- List of national seminars held

- Publications as a result of SUMAMAD

- References

[Total: about 150 pages text, plus graphic material amounting to a total of some 250 pages. Deadline for the submission of manuscripts to UNESCO: 15 January 2013)

1.2 Regarding the **Policy Brief for Decision-Makers,** the following structure is proposed:

Foreword: 1 page

  Summary for Decision-Makers: 2 – 3 pages

  Chapter 1 - Focus on Marginal Drylands: 7 pages

* Challenges in Marginal Drylands
* Integrating Human Well-being with Natural Resource Management
* Ensuring Participation as a Key to Success
* Benefits Beyond Income Generation: Community Empowerment
* Sustainable Dryland Management, Agriculture and Conservation
* Future Land-use Scenarios
* Introducing Livelihood Alternatives to Communities
* Network Building to Improve Management and Research in Marginal Drylands

Case studies: 2 pages per case study, of which 1 page text, and 1 page

graphic material)

* Major challenges at site level
* Main recommendations
* Evaluation of impacts (suggested by UNU-INWEH)
* Graphic material: Location map, catchy photos, graphs

  Annexes:

* SUMAMAD Publications
* List of Contributing Authors
* Bibliography
* Acknowledgments

[Total number of pages: about 35; deadline for submission of manuscripts to UNESCO and UNU-INWEH: 15 January 2013]

1.3. Regarding the **Leaflets**, one per individual project site, the length should be in 4 pages (to be individually published in Arabic, Chinese, English, Farsi, French, Spanish) with a “master text” for all in English, reflecting the main SUMAMAD findings per project site covering the period 2004-2013.

2. Editorial notes:

* At UNESCO, the main editor will be: Ms Maria Cardenas (m.cardenas@unesco.org)
* Please send manuscripts by 15 January 2013 to Ms Maria Cardenas, with copy to Mr Thomas Schaaf (t.schaaf@unesco.org) and Ms Harriet Bigas (bigas@inweh.unu.edu)
* Please use character type “Times New Roman”, with font character size 12.
* Please send manuscripts in “Word” (not in pdf format).
* Please use only simple formatting (e.g. no page numbers)
* Graphic materials (e.g. photos, histograms, tables) should be numbered and should be submitted as separate files. Photos need to have a caption, and the name of the photographer. All graphic materials should be free from prior copyrights.