

Proposal on Environmental Data and Information Management System

The 9th Governing Council of SACEP held in August 2005 at Thimphu, Bhutan identified the data and information management as one of the key areas concerned in the region. Subsequently, the 10th Governing Council of SACEP held in January, 2007 in Kathmandu, Nepal recommended carrying forward the work programme recommended by the 9th GC.

In order to take forward the decision of the Governing Council, SACEP Secretariat has prepared a detailed project proposal to establish an environmental data and information system for South Asia (Annex 1). The initial draft was sent to the UNEP-ROAP for their comments. The comments received from UNEP-ROAP were analyzed and incorporated. The final proposal had been sent to the member countries for their comments and endorsement. So far, the proposal was highly appreciated and endorsed by 4 member countries Afghanistan, Pakistan, Bhutan, Maldives and endorsement from the others is awaited.

The Secretariat requests the 11th Meeting of the Governing Council of SACEP to endorse the proposal so that it can be moved to donors for necessary support.

**Proposal on
Establishment of Environmental Data and Information
Management System for South Asia**



**South Asia Co-operative Environment Programme
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Establishment of Environmental Data and Information Management System for South Asia

1. Introduction

Accurate, reliable and timely information is vital to effective decision-making in almost every aspect of human endeavour, whether it be undertaken by individuals, an organizations or governments. It is an essential component of any effort to persuade individuals, organizations or governments to make different decisions from the ones which they might make in the absence of particular pieces of information. And it is an integral part of any attempt to hold those who make decisions accountable for the consequences of the decisions which they make. In the absence of accurate, reliable and timely information, people, organizations and governments make bad decisions; they will be unable to help or persuade others to make better decisions; and no-one will be able to ascertain whether the decision made by particular individuals, organizations or governments were the best one that could have been made at the time.

The Agenda 21 says that “in sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels”. The Agenda 21 in its chapter 40 highlights two major areas of concerned, the data gaps and the availability of the information. The gap in the availability, quality, coherence, standardization and accessibility of data is common problem found in developing countries.

The South Asia State of Environment Report 2001 and National SoE Reports of South Asian countries clearly pointed out lacking of necessary data and the gaps of the data that available hampered the making correct policy decisions on natural resource management in the national and regional level.

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Scattered information and data, lack of tools, technical expertise and resources, etc have been the issues to the management and analysis of data and processing techniques to provide proper information or to provide policy briefs to the decision makers.

2. Priority

The 9th GC of SACEP identified the data and information management as one of the priorities in the region. It was re-iterated by the 10th GC.

The SoE reports have identified the data and information management as key priority for environmental management and sustainable development of the countries and the region as well.

The work programme for 2007-8 will focus on establishing and building on the existing resources to a fully functional database management system. The unit will aim at providing updated information to SoE Reporting; preparation of regional Sustainable Development Strategies; Environmental and Sustainable Development indicators under various themes such as air, water, land, biodiversity and issues such as waste management; act as the sub-regional hub to the e-KH (environmental knowledge hub) for the Asia Pacific region under the guidance from UNEP ROAP for operational management.

For a proper functioning of the Secretariat in providing status to the convention secretariats, national technical agencies and relevant government departments, a properly designed clearing house mechanism with appropriate links to the existing network of databases at various agencies is a necessity. Such a facility would ensure proper dissemination and regular monitoring of the regional status and provide timely information to the policy makers. Such an activity would be an on- going process at the Secretariat and would also be the back-bone to the Secretariat's operations.

Overall Objective

To strengthen the environmental data and information base in South Asia for improved decision making for sustainable development

Specific Objectives

OBJECTIVE 1: To assist in the development and operation of National Environmental Data and Information Centres, establish a Regional Environmental Data and information Centre and their networking in the South Asia Region;

OBJECTIVE 2: To build capacity of national and sub-regional organizations on environmental data and information management applying standard formats and methodologies, who are involved and contributed to data and information reporting;

OBJECTIVE 3: To harmonize the data and information reporting system at sub-regional and national level;

OBJECTIVE 4: To assist in the development and maintenance of national and regional metadata, information and data holding databases;

OBJECTIVE 5: To assist in the development and dissemination of environmental data and information products responding to the needs of a wide variety of user groups using national and regional networks;

3. Current Status

This project will involve all countries of South Asia Namely; Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. All these countries are members of the South Asia Co-operative Environment Programme (SACEP) which is an intergovernmental organization established in 1982 by the countries of South Asia.

The countries of South Asia endowed with natural resources and the economies are directly depending on these natural resources. Yet, there is no complete data and information about these resources. Properly organized data and information on country's natural resources and its use would contribute significantly to International initiatives such as poverty eradication and protection of the environment spelt in the Millennium Development Goals as well as to National Development Plans and visions of the countries within South Asia emphasizing on sustainable development. This is a key factor to achieving sustainable development in the region.

There were several projects carried out by many international and national agencies in these countries with regards to natural resources management. During those projects, vast amount of data and information which are really important for development of these resources sustainably in future collected and store in various government and non-government agencies. There is no proper system established to interlink these scattered data and information within the countries as well as within the region.

South Asia Co-operative Environment Programme (SACEP)

South Asia Co-operative Environment Programme (SACEP) is an inter-governmental organization, established in 1982 by the governments of South Asia namely: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. It is a multilateral organization registered with the UN Secretariat in accordance with article 102 of the charter of the United Nations (Annex-5). Its mission is to promote and support protection, management and enhancement of the environment in the region. The Secretariat is based in Colombo, Sri Lanka. Colombo Declaration and Articles of Association of SACEP constitute the legal basis for SACEP. The principle organs of the governance structure (organization structure) of SACEP are the Governing Council (GC), Consultative Committee (CC), National Focal Points (NFP), Subject Area Focal Points and the SACEP Secretariat.

Since its creation, SACEP has implemented a number of regional projects and programmes in the areas of environment education, environment legislation, biodiversity, air pollution, and the protection and management of the coastal environment. SACEP is hosting the South Asian Seas Programme which is one of the eighteen regional seas programmes of the UNEP. The Malé Declaration on control and prevention of air pollution and its likely transboundary effects for South Asia is another significant effort which encourages intergovernmental cooperation to combat the transboundary air pollution problem. SACEP has long term experience of working in collaboratively with several multilateral and bilateral agencies and number of MoUs signed with organizations viz. UNEP, WMO, UNESCO, IUCN, IMO, ICRAN, UNEP-GPA, SAARC, TRAFFIC, RECOFTC, TRADA, etc.

4. Project Activities

4.1 Assessment of needs and the resources available at national and regional level

A detailed assessment will be undertaken on national and regional level needs to achieve more cost-effective and relevant data collection and assessment by better identification of users and of their information needs at the local, national and regional levels. This will also include identification of institutions which are having related data and information, resources available, existing methods of access, form of data, etc. in each country. The national and regional level assessment will be done through a series of national and regional workshops.

4.2. Provide assistance in the development and operation of National Environmental Data and Information management Centres in member countries of SACEP

4.2.1. Organization of national coordination meetings to identify suitable host institutions for National Environmental Data and Information management Centre

After the identification of existing networks, mechanisms and institutions at national and regional level, a best possible way would suggest to strengthen and incorporate them into the proposed network. In order to fully benefit from the project Member States will be requested to formally establish a national environmental data and information management centre and a person to coordinate national level activities. Financial assistance and expertise, where required will be provided for the organization of national coordination.

4.3. Provide training in data and information management applying standard formats and methodologies

Considering the existing scattered data and information among several agencies and multidimensional nature of the environmental data, training programme will be organized on the method of data harmonization including data monitoring, metadata, quality control, reporting, etc at national and regional level.

4.3.1. National Data and Information Management Training Course

Three national training courses in each country, two in data management and one in information management will be organized to facilitate the establishment and operation of the national centres. These courses will train government officials and other relevant stakeholders on various aspects of data and information management including methods of data gathering, analyzing, interpreting, database management, etc.

4.3.2. Regional Data Management Training Course

Three regional data management training courses will be organized covering all responsibilities and their technical aspects.

4.3.2. Regional Information Management Training Course

Three regional information management training courses will be organized covering all responsibilities of cooperating institutions, as well as library management and library services.

4.3.2. Preparation of national and regional training manuals on environmental data handling sharing and reporting

National and regional training manuals will be prepared to facilitate the training causes and for the purpose of continuation of training requirements in future.

4.4. Establishment of Regional Environmental Data and information Centre and Networking of Regional Centre with the National Centres

A Regional Environmental Data and information Centre will be established at the SACEP Secretariat, Colombo, Sri Lanka and establish network with the all designated national centres as well as other institutions who are managing environment related data and information in the region. The regional Centre will also be networked with other regional and international information centre to bring the maximum benefit to the region.

4.5. Provision of Hardware and Software Packages

In order to ensure that the data and information centres can fully participate in the technical aspects of the project in a harmonized way, a standard hardware and software package will be provided and install. The people who are operating this hardware will be given a full training on how to operate them and software usage. It will be a regional training. This will also facilitate problem solving. Hardware and software will be provided for both national centres and a regional centre.

4.6. Provision of support for operational expenses data and information centre

Support will be provided for day-to-day operational expenses required to operate the data and information centres (telecom, Internet access, office supplies, overtime,...). Emphasis will be placed on development of products and services leading to self-support of the data and information centres.

4.7. Development of national and regional meta databases

A large amount of data relevant to South Asia is archived throughout the world but is not available to South Asian countries. This activity will assist in the identification, repatriation and digitization of these data, within the framework of the project. A suitable format and software will be used to develop national and regional metadata bases covering national data holdings. The regional centre established in SACEP will host the regional metadata base on the SACEP's website.

4.8. Data and Information Dissemination

A comprehensive and fully operational regional clearing house mechanism that would provide information layers under various areas like Land, Water, Air and Biodiversity will be establish to disseminate the data and information.

Support will be extended for specific activities by the data and information centres to publicize the products and services provided/developed by the project and the centres. Emphasis will be placed on development of products and services leading to self-support of the data and information centres.

4.9. Project Management

4.9.1. Project Management structure and workshops

In order to ensure the effective implementation of the project, an appropriate project management structure will be established which will not only ensure that the project is implemented in-line with the main objectives and within the available budget, but which will

also ensure that national and regional priorities identified by the Member States are fully taken into consideration in the work plan.

A project coordinating committee which include person in-charge of national centres, senior officer from environment ministry of each country, SACEP, donor and regional project coordinator will be establish to facilitate the smooth run of the project. The coordinating committee will meet twice a year and evaluate the progress of the project and suggest way forward.

4.1.2. Project Staffing

A regional project coordinator, two database assistants and a secretarial assistant will be recruited and will be based in SACEP Secretariat, Colombo Sri Lanka. Eight national consultants will also be recruited and will be based in their respective countries.

5. Work Plan and Timing (2008-2010)

Activity	Year 2008				Year 2009				Year 2010			
	1 st qtr	2 nd qtr	3 rd qtr	4 th qtr	1 st qtr	2 nd qtr	3 rd qtr	4 th qtr	1 st qtr	2 nd qtr	3 rd qtr	4 th qtr
4.1 Assessment of needs and the resources available at national and regional level												
National needs assessment workshops												
Regional level needs assessment workshop												
4.2. Provide assistance in the development and operation of National Environmental Data and Information management Centres in member countries of SACEP												
National coordination meetings to identify suitable host institutions for National Environmental Data and Information management Centre												
4.3. Provide training in data and information management applying standard formats and methodologies												
Preparation of National and Regional Training Manuals												
National Data and Information Management Training Course												
Regional Data Management Training Course												
Regional Information Management Training Course												
4.4. Establishment of Regional Environmental Data and information Centre and Networking of Regional Centre with the National Centres												

4.5. Provision of Hardware and Software Packages												
4.6. Provision of support for operational expenses data and information centre												
4.8. Data and Information Dissemination												
4.9. Coordinating committee meeting												

6. Budget

Item	No.	Cost (USD)	Total (USD)
1. National needs assessment workshops	8	20,000	160,000
2. Regional level needs assessment workshop	1	50,000	50,000
3. National coordination meetings to identify suitable host institutions for National Environmental Data and Information management Centre	8	10,000	80,000
4. National Data and Information Management Training Course	3 x 8	20,000	480,000
5. Regional Data Management Training Course	3	50,000	150,000
6. Regional Information Management Training Course	3	50,000	150,000
7. Provision of Hardware and Software Packages for national centres	8	50,000	400,000
8. Provision of Hardware and Software Packages for regional centre	1	100,000	100,000
9. Provision of support for operational expenses data and information centre	9	50,000	450,000
10. Preparation of National and Regional Training Manuals		20,000	20,000
11. Data and Information Dissemination	9	20,000	180,000
12. Coordinating committee meeting	6	40,000	240,000
13. Regional Project coordinator	36 months	2,000	72,000
14. Database Assistants at regional centre	2 x 18 months	500	18,000
15. Secretarial assistant to regional coordinator	36 month	250	9,000
16. National consultants	8 x 36 months	1,000	288,000
GRAND TOTAL			2,847,000

7. Project Partners

There are two key parties in this project; funding agency and South Asia Co-operative Environment Programme (SACEP).

Roles of Different Partners

SACEP

SACEP is the main executing agency for this project and will be responsible for the implementation of the project throughout the period. All the financial management and administrative works including recruitment of project personnel will be done by the SACEP. SACEP will work through the local Ministry of Environment of member countries to implement the project activities. The local ministry will assist in selecting a national institute as a national centre and nominating officials to coordinate with SACEP for effective implementation of the project.

Technical Partners

The National Information Center of India and the Central Environmental Authority of Sri Lanka will be participated as a technical partner to the project.

Other Collaborative Partners

The Environment ministries of member countries of SACEP and UNEP-RRC.AP will be the other collaborative partners for the implementation of the project.