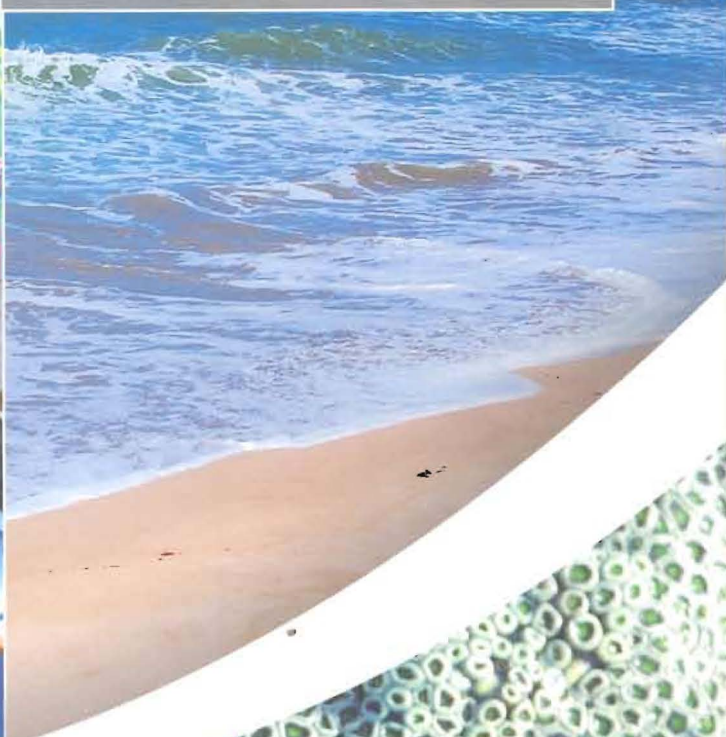


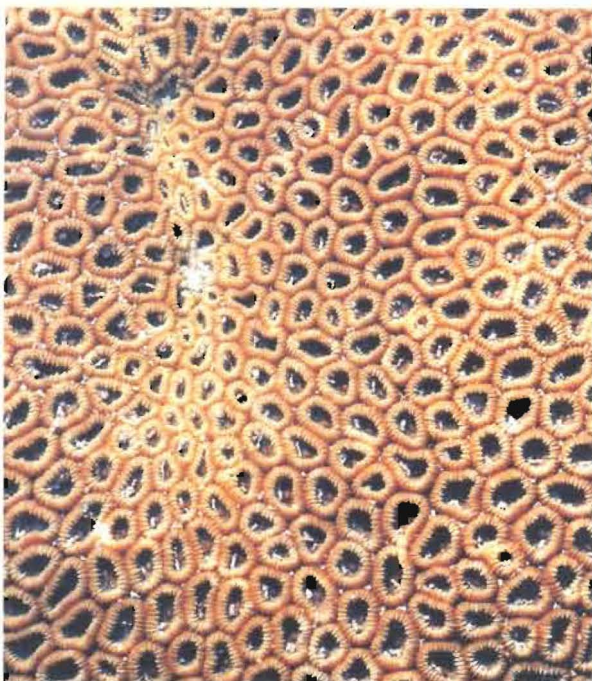


Regional Communication Strategy for Coral Reef Management in South Asia



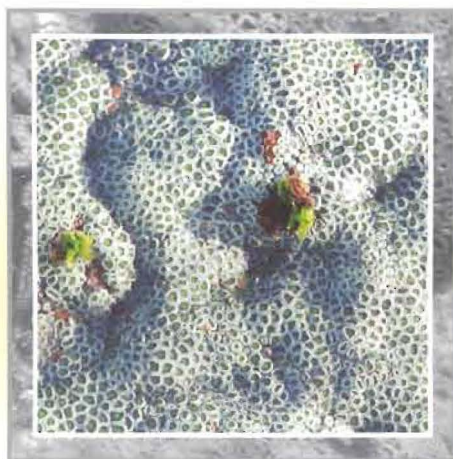
With funding from the
European Union







Regional Communication Strategy for Coral Reef Management in South Asia



Prepared by



GEER FOUNDATION

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With funding from the
European Union



SACEP

December - 2008



Preface

Reefs are structures in sea waters, usually near the shoreline, built by the calcareous secretion of small organisms. Coral reefs form a unique ecosystem which supports a wide range of biodiversity which is comparable to that of tropical rain forests. Apart from being of a great socio-economic value to the local reef dependent communities, reefs are the most colorful ecosystem on earth. However, due to enhanced human activities on land, sea shore and in the sea, this fascinating ecosystem is facing serious threats all over the globe. South Asia holds a very significant proportion of the world's coral reefs which require collective and coordinated efforts for their conservation.

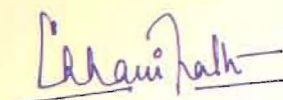
South Asian Cooperative Environment Programme (SACEP), is an inter-government organization of South Asian countries for furthering the cause of environmental conservation and protection in South Asian region. South Asia Coral Reef Task Force (SACRTF), which is a programme of SACEP, brought the conservation of coral reefs into focus and took an important decision in its first meeting to develop a Regional Communication Strategy for Coral Reef Management in South Asia. The need for a communication strategy was also felt for enhancing awareness and sensitizing stakeholders so that we can have their active participation in the management and conservation of coral reefs in South Asian Seas Member Countries which include Bangladesh, India, Maldives, Pakistan and Sri Lanka.

Gujarat Ecological Education and Research (GEER) Foundation, India is actively involved in ecological education and has a long experience of developing environment education campaigns. The task of developing the aforesaid regional communication strategy for coral reef management in South Asia was assigned to GEER Foundation by SACEP. It gives me immense pleasure to present this communication strategy document.

The strategy has been developed through a consultative process with SACEP and representatives of different member nations during SACRTF meetings and feedback received from various individuals, funding organizations, etc., have been taken into account. A presentation about the draft report of the strategy was made during the third meeting of SACRTF held at Chennai, India on 16 December, 2008. The feedback received from members have been incorporated in this final draft of the strategy.

We may mention that developing this strategy was a process of immense learning for GEER Foundation. We are thankful to SACEP and SACRTF members for assigning this task to GEER Foundation and also for their valuable contributions to the development of this strategy document. We are hopeful that this strategy will go a long way in conserving the unique, valuable and yet fragile coral reef ecosystems in South Asia.

29 December 2008



(C N Pandey)
Director,
GEER Foundation
Gandhinagar

Acknowledgement

The development of this strategy document has been made possible by the initiatives and support of SACEP and SACRTF.

Thanks are due to Dr. B P Nilartna, Chairman, SACRTF and other members of SACRTF and SACEP for inspiring this work.

Dr. Arvind A Boaz, Director General, SACEP provided the framework for this task.

Dr. Venkatesan and Mr. Hiran Tillekaratne of SACEP made valuable contributions to the content and form of the strategy.

A number of persons sent their comments and suggestions on the draft strategy report which have enriched the document. Thanks are particularly due to Dr. Kristian Teleki, Director, ICRAN and Ms Nicola Barnard, ICRAN for their valuable feedback and support.

Thanks are due to Mr. Dhiraj Bhalani, Mr. B R Raval, Ms. Richa Pandey, Mr. Jignesh Suthar, Mr. Mehul Joshi and Mr. Shreejit Menon of GEER Foundation for their hard work and valuable contribution in developing this strategy document.

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Director, GEER Foundation, India

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Executive Summary

Coastal and marine ecosystems support very rich species diversity in south Asia as the region has numerous estuaries, lagoons, mangrove areas, coral reefs, sea-grasses and coastal wetlands that provide essential habitats for many rare and valuable species, which in turn provide vital goods and services to millions of people. In South Asian region, countries like Bangladesh, India, Maldives, Pakistan and Sri Lanka have coral reefs, which are facing numerous threats due to natural and anthropogenic factors. The livelihoods of many reef dependent communities are at risk as the coastal resources are rapidly shrinking. Increasing demand and declining productivity of coastal bio-resources make the issues more complex. The management and conservation of coral reefs is one of the most challenging tasks for conservationists and marine bio-resource managers in South Asia.

South Asia Cooperative Environment Programme (SACEP) initiated specific programmes to deal with the management and conservation issues by establishing the South Asia Coral Reef Task Force (SACRTF) and in the first meeting of SACRTF, the members realized the need for a comprehensive communication strategy for coral reef management in South Asia. This task was assigned to GEER Foundation, India.

The communication strategy document clearly spells out the need for such a strategy. Two major components of the communication strategy are: Communication System for Partner Organizations (CSPO) and Communication System for General Awareness (CSGA). The structure and pathways of the strategy have been discussed in detail. Under CSPO, two modules are identified, i.e., Conservation Module which deals with non-transient and transient information, and Capacity Building Module which outlines the capacity building plan and its implementation and monitoring.

The component on general awareness suggests communication modes like seminars, workshops, audio-visual programmes, eco-fairs, street plays, rallies, exhibitions, posters, interpretation centre, newsletters, etc., along with the use of traditional modes of communication like folk dance, drama, puppet show, painting and dance drama that are suitable for generating awareness among different target groups. In the document, an institutional mechanism for implementing the strategy is also suggested along with a component for monitoring and a prescription of a time frame for accomplishing various tasks. The overall objective of this communication strategy is to disseminate information, generate awareness and sensitize the stakeholders about the importance of coral reefs for sustenance of the marine and coastal ecosystems and seek their cooperation in the management and conservation of the coral reef areas of South Asia.

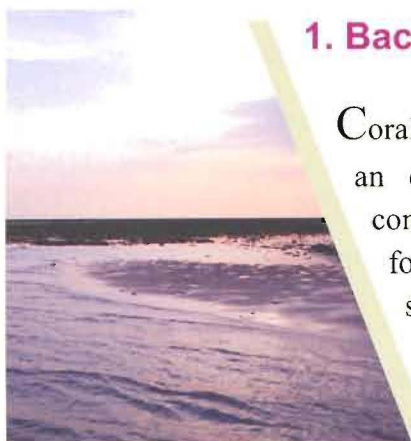
It is hoped that this strategy would facilitate the achievement of this objective and encourage a systematic and integrated approach to various management and conservation issues.

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Regional Communication Strategy for Coral Reef Management in South Asia



1. Background

Corals constitute tiny anemone like colonial animals that secrete an exoskeleton of calcium carbonate. Under the right conditions these exoskeletons aggregate to form vast formations called coral reefs which are some of the largest structures made by any living thing. The coral reefs also have the distinction of being the most biologically diverse marine ecosystem on earth, rivaled only by tropical rain forests. Coral reefs are found throughout the tropical and subtropical oceans in the Indo-Pacific and Atlantic

region, normally between the Tropic of Capricorn and the Tropic of Cancer (30° S, 30° N latitude). The coral reef region of the Indo-Pacific Ocean extends from the Red Sea and the Persian Gulf through the Indian and the Pacific oceans to the western coast of Panama. Coral reefs occur in over 100 countries. Most of these are developing countries. The coral reef area of the world has been estimated to be 2,84,803 sq km (Wilkinson, C. 2008).

South Asia has 19,210 km² of coral reef (Wilkinson, C. 2008) which is about 6% of the world's coral reefs. India has 5,790 km², (i.e., 2.04% of the global reef area), Maldives has 8,929 km², (i.e., 3.14 % of the global reef area), and Sri Lanka has 680 km², (i.e., 0.24% of the global reef area) coral reef areas. Bangladesh and Pakistan have small coral reef areas. The details of major Marine and Coastal Protected Areas (MCPAs) is given in Annexure-I. A large number of people depends on coral reefs for their livelihood. In addition, reef based tourism activities encourage foreign investment, generate local employment opportunities, and comprise the mainstay of both the Sri Lanka and Maldives economies. As such, the maintenance of healthy coastal and coral reef habitats is critical in order to sustain the social and economic development of the South Asia region and protect these significant resources on behalf of the global community.

2. Communication Strategy

2.1 Need

As per the recent report of the Global Coral Reef Monitoring Network (GCRMN), 25% of the world's coral reefs has already vanished or is severely damaged and 30% is degraded and threatened. Globally, coral reefs are in crisis due to several causes: poor land use

practices and runoff of pollutants, sediments and nutrients; disease outbreak, which may be associated with poor water quality and pollutants; coral bleaching, associated with increasing seawater temperatures and global climate change; and degradation of coastal mangrove forests. Further, human activities like over-exploitation of resources, commercial fishing, destructive fishing practices that degrade and destroy the habitat and increasing coastal population are also responsible for coral reef damage.

Further, coral reef ecosystems are biodiversity hotspots having the highest biological productivity in the world. They are, therefore, also areas with highest levels of human activities, whether they are industrial, fishery or recreation. This renders these ecosystems susceptible to many anthropogenic pressures. In turn, human populations that depend on corals, especially in developing countries, are also adversely affected by the disappearance of coral reefs. It is imperative that these areas are managed in a scientific and sustainable manner by involving the various stakeholders. However, as the stakeholders, and also their interests in this natural resource, are diverse, the task of managing it becomes vastly complex. Only a well-planned strategy with clear objectives that not only coordinates all the stakeholders but also involves them in the management can ensure effective conservation of coral reefs. It is in this context that it is necessary to educate and sensitize all the stakeholders of this unique but fragile ecosystem so that it is conserved before it is too late.

2.2 Objectives

Such a strategy will seek to achieve several general objectives such as the following:

1. To create mass awareness about the significance of conserving marine and coastal bio-resources, particularly coral reefs, and about the present programme.
2. To promote understanding in the various stakeholders about regional and national conservation visions, policies, rules, regulations, conventions, and obligations.
3. To develop an interface between managers, researchers and stakeholders for sharing thoughts, views, practices and experiences to inspire action at local, national and trans-boundary levels.
4. To institutionalize a system consisting of periodic and regular reporting; communication pathways; and information storage and retrieval for vertical and horizontal integration in the form of an interactive network to be used by partner organizations involved in the implementation of capacity building programmes.
5. To institutionalize an interactive arrangement for free exchange of ideas and information with the society at large.
6. To facilitate communication campaigns at local, national and regional levels using various appropriate media.
7. To develop a strong mechanism for early warning and for understanding and preparing for natural adversities.

2.3 Target Group

Coral reef conservation demands cooperation from various multi-disciplinary groups which includes government departments, academic and research institutions, industries and other stakeholders like local communities and NGOs.

Government Departments

The conservation of coral reef would be effective only if we get cooperation from all its stakeholders; hence the strategy should also address them and seek their cooperation. They include the central ministry concerned with environment, forests and natural resources which deals with the issues of natural resource conservation. Other government departments include Forest and Environment Department of the maritime states, Planning and Development Department, Finance Department, Revenue Department, Economic Affairs and Statistical Department, Food, Agriculture and Cooperation Departments, Local Government Institutions, Rural Development Department, Health and Social Welfare Department, Water and Power Department, Education Department, Science and Technology Department, Fishery Department, Geology and Mining Departments of the centre, state or province.

Academic and Research Institutes / Department

This includes national or state level academic and research institutions involved in marine bio-resource development and research. They include Zoological Survey Department, Botanical Survey Department, Maritime Security Agencies, Universities and Marine Research Institutions and Pollution Control Boards.

Industries

Many industries like cement industry, fisheries industry, petroleum industry, chemical and fertilizer industry and mining industry are directly dependent on coral reefs for raw material. The hotel industry and recreation and tourism industry are indirectly dependent on coral reefs for their businesses. Their education is also equally important for seeking their contribution in the overall conservation of coral reefs.

Other Stakeholders

Local communities are dependent on marine bio-resources for their livelihood. Their contribution in the conservation efforts should be incorporated as they have traditional knowledge which has been generated over generations. The role of NGOs in organizing communities, implementing programmes and networking could be useful in encouraging the right approach for cooperation in conservation of coral reefs. Using mass media for generating large scale awareness in the region could also be the part of the strategy.

3. Components of the Communication Strategy

The communication strategy will have two major components which include

Component I: Communication System for Partner Organizations (CSPO)

Component II: Communication System for Generating Awareness (CSGA)

In the case of CSPO, eight different target groups have been identified for the South Asia region. The structure, communication pathways and implementation and monitoring are dealt with in detail in this component.

In the case of component-II for Communication System for Generating Awareness (CSGA), keeping in mind the large target audience, numerous languages, traditional knowledge and culture of South Asia Seas Region, this module has been developed so as to addresses the target group, communication mode and communication plans.

3.1 COMPONENT I: Communication System for Partner Organizations (CSPO)

CSPO will address and strengthen the reporting system among the partner organizations for the efficient implementation of the programme. It will ensure institutional strengthening and capacity building for the long term management of Marine and Coastal Protected Areas (MCPAs) having coral reefs in South Asia. CSPO will also be useful for implementing any similar regional conservation programme pertaining to coastal and marine biodiversity which has specific focus on coral reefs in South Asia.

3.1.1 Target Groups of CSPO

The CSPO will cover the following agencies and establish a vertical and horizontal reporting and information system among them for facilitating efficient and effective implementation of the programme at regional, national and managerial levels. This will enhance the capability of partner organizations in planning, implementing and monitoring the programme which are:

- The regional coordinating agency at SACEP / South Asia Coral Reef Task Force (SACRTF)
- National governments of Bangladesh, India, Maldives, Pakistan and Sri Lanka
- National Coordinating Agency which will be either the concerned ministry/ department in the respective country or any other agency designated for this purpose by the national governments/National Coral Reef Task Force (NCRTF)
- Managers of Marine and Coastal Protected Areas (MCPAs)
- Researchers
- Non - Government Organizations (NGOs)
- Reef-dependent local communities, e.g., fishermen
- Reef-dependent industries, including tourism industry

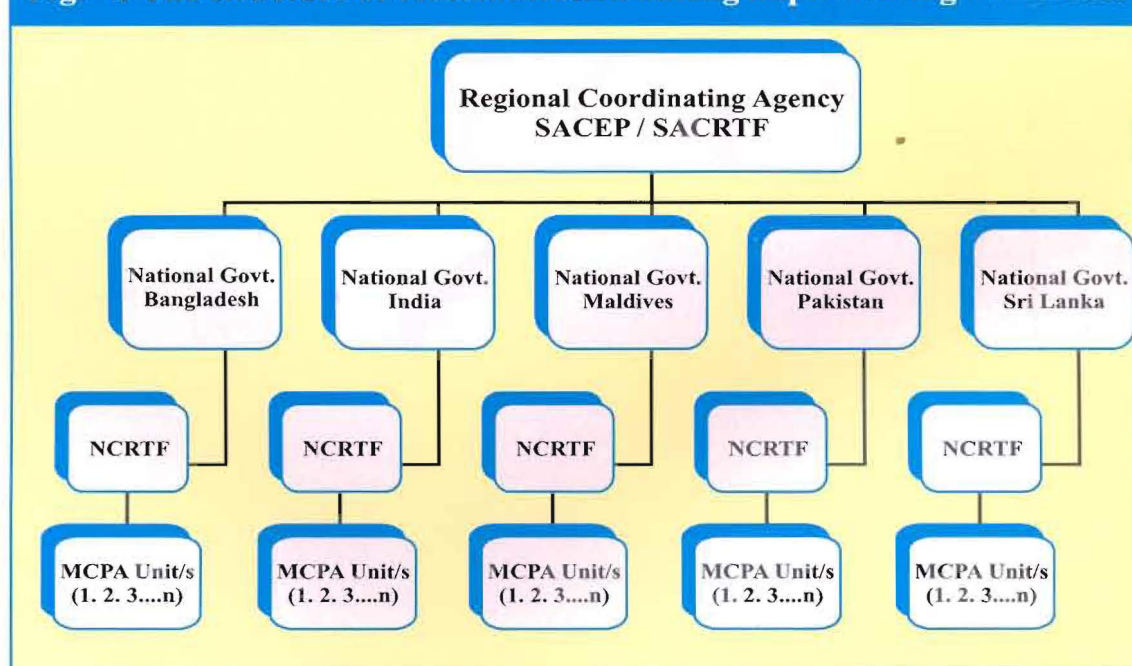
3.1.2 Structure of Communication among Implementing Authorities

The SACRTF is the regional coordinating authority for SACEP/SASP. It would also ensure regular flow of information and dissemination. It is also proposed that each member country would establish a national level task force which will be recognized as the National Coral Reef Task Force (NCRTF) for this programme and would authorize it to communicate with the various MCPA units within their respective countries and also with the network partners. The NCRTF would also be entrusted with the responsibility of sending regular information and periodic reports to their respective national governments and to the regional coordinating authority at SACEP/SACRTF.

SACEP/SACRTF

The NCRTF would develop a system for regular reporting, information exchange and data storage. It will also develop the structure of information that will be gathered from MCPAs, communities, research organizations and other stakeholders. These stakeholders will then on the basis of this structure, generate information for transmission to the respective national government as well as to the regional coordinating agency at SACEP. For example, The NCRTF may gather information from MCPA units, communities, research organizations and other stakeholders in the local language, which they would then convert into the national language and English. They may also design the format or structure of information and fix the frequency of information flow from MCPA units and other stakeholders to them so as to ensure uniformity and usability of data. The broad communication structure involving implementing agencies (without other stakeholders) is indicated in Figure-1.

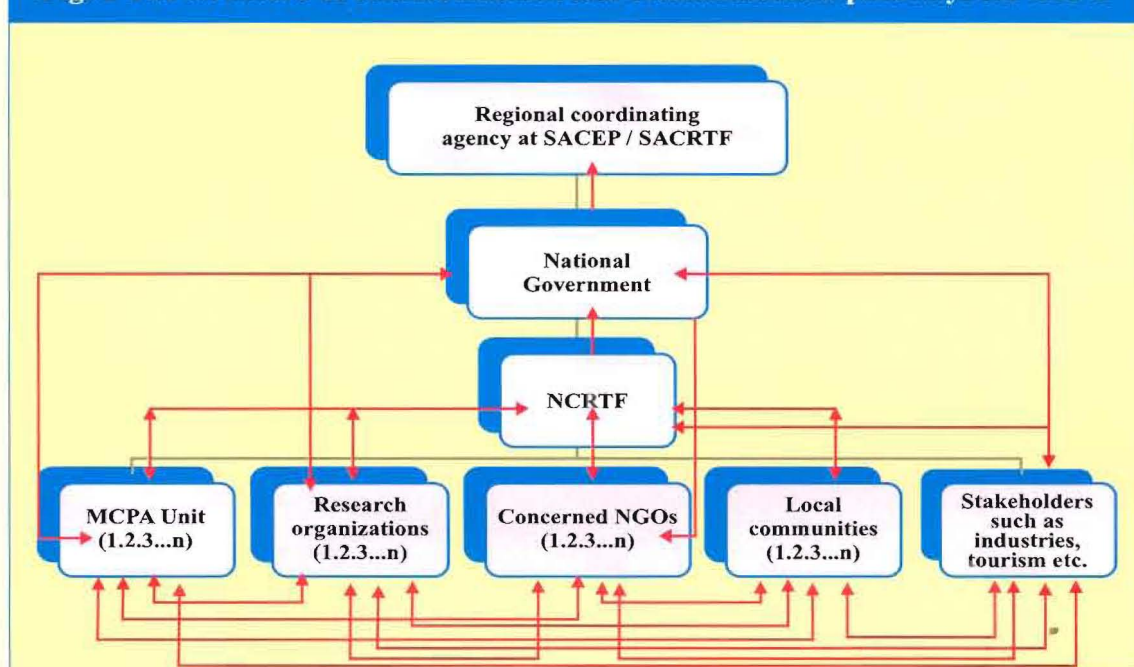
Fig. - 1 The structure of communication among implementing authorities



3.1.3 Communication Pathways for CSPO

At present, the existing communication system is not uniform in all the five countries in South Asia. Therefore, it is difficult to compile regional information. The structure and frequency of the reporting is also not uniform. There are a number of areas where information is, in fact, lacking which can be addressed by a common communication strategy. The information regarding good practices, success and failure stories, outcomes of scientific research, etc., are not shared adequately because of a lack of commonly agreed communication system. The present communication strategy aims at strengthening the communication system, creating a uniform and user-friendly communication and reporting system and filling the information gap experienced by the managers of coral reefs in South Asia.

Fig.-2 The structure of communication and communication pathways for CSPO



The target group for the communication pathways is mentioned in 3.1.1. The suggested communication pathway for CSPO is indicated in Figure-2.

The communication pathway is crucial for effective management of MCPAs. The regional level coordination of the five member countries has been already been established through SACRTF. At the national level, the communication pathway would depend on a National Coral Reef Task Force, which will be responsible for two way communications between MCPAs, research and academic organizations, NGOs, local communities and other stakeholders. The information required by the NCRTF is provided in the information module. The information module will consist of two modules. Module-1: Conservation Module (CM) and Module-2: Capacity Building Module (CBM). This will facilitate effective flow of information for framing appropriate policies and dissemination of government policies to the public.

The main recipients of the information gathered and processed by the CPSO will be the following:

- International and regional agencies
- National governments
- Policy makers
- Managers
- Researchers
- Society at large - consumers of reef resources, producers, school children, universities, institutions, etc.
- Reef-dependent local communities - fishermen
- Industries including tourism industry
- Media

CSPO would generate the regular flow of information that will be required for efficient management of marine bio-resources and coral reefs, as well as the information required for the implementation of the capacity building programme. Hence, CSPO will have two modules as mentioned below.

Module-1: Conservation Module (CM)

Module-2: Capacity Building Module (CBM)

Module-1 Conservation Module (CM)

The Conservation Module (CM) would address the communication requirement for the conservation of marine bio-resources and coral reefs. This would have some non-transient information which would remain unchanged for relatively longer durations and some transient information that would require to be exchanged regularly and periodically for efficient management. Two parts of CM are envisaged. They are for non-transient information and for transient information.

(A) Non-transient Information

Non-transient type of information like maps, satellite imageries, extent of cover, etc., will not change for longer durations of time. Such information will be gathered by NCRTFs and placed on the web site of the programme at both national and regional level and placed in the public domain. Such information will include general information, ecological status of ecosystems, socio-economic values and major anthropogenic impacts. Some of the information will be in the form of managerial data. The non-transient information would include the following.

- **General information and maps**

- Maps of the coral reefs and other associated ecosystems in and around the MCPAs.
- Types of coral reefs, such as fringing, barrier, atoll, lagoon etc. in and around the MCPAs.
- Status and area of reefs such as live reefs, dead reefs, reef under sand/mud, etc.
- Extent of other associated habitats and their relation with the coral reefs.
- Previous status and the present conditions of the coral reefs.
- Legal and policy framework.

- **Ecological status of each ecosystem**

- Conservation status - Protected Area, Biosphere Reserve, etc.
- Species diversity and abundance of species.
- Endemic and globally threatened species.
- Status of reef fish.
- Unique features of reefs and MCPAs.
- Critical habitats in and around the MCPAs.
- Landscape influencing the MCPAs and reefs.

- **Socio-economic values**

- Economic values and socio-economic dependence of local communities.
- Cultural and traditional values.
- Industrial development and dependence.

- **Major anthropogenic impacts**

- Human population - direct and indirect dependence within 10 km of the boundaries of PAs.
- Demographic profile of the human population.
- Potential sources and impact of pollution.
- Commercial utilization of marine bio-resources.
- Eco-tourism - status, potential and major issues.

The above-mentioned information will be collected by the NCRTF for all the MCPAs and will be compiled and presented for each MCPA separately. The NCRTF will be helped by MCPA units, research organizations, NGOs, communities, stakeholders and government agencies.

Flow of Information

The above information will be generated by various MCPA units and sent to the NCRTF and the national agencies once every three years. The NCRTF would further transmit the information after compilation and scrutiny to the national government agency and the regional coordinating agency at SACEP.

Frequency of Information Updation

This information will be updated once in three years. A uniform format would be developed for the purpose.

Language

This information would be developed, stored and disseminated in all the three types of languages, viz. English, national language of the respective country and the local languages.

Accessibility of the Information

This information will be accessible to all the network partners and will be placed on the public domain so that it is available to the society at large. The partner agencies will also jointly update the information every five years.

(B) Transient Information

Certain information pertaining to the conservation of MCPAs would change more frequently and would, therefore, be required periodically. Such transient information would include the following:

- Plan of action for six months and the progress made during the period.
- Bio-physical assessment. The simplest and quickest way to obtain a broad qualitative picture of large areas of reefs is the manta tow method, if water quality is suitable (10 meters at least) and observer is towed behind a boat which stops at regular intervals so that observations can be made of overall reef conditions or populations of visible species (e.g., crown of thorns, starfish, sharks and turtles). Swimming survey can be used for smaller distances. Reef check (www.reefcheck.org) is another method specially designed for use by non-professionals trained and led by marine scientists. It involves counting key indicator species along transects.

Benthic monitoring: - Line transects or quadrates are most commonly used and require more time in the water and more complex subsequent analysis than the rapid survey. The line intercept transect (LIT) allows estimations to be made of percentage cover of different substrate types.

Reef fish diversity and abundance is usually monitored using underwater visual census (UVC) techniques, including belt transect or stationery counts and random swim techniques.

- Details of conservation works carried out, such as afforestation, coral rehabilitation, management of invasive species, etc.
- Protection measures taken and their impact.
- Number and types of offences registered during the past six months.
- Details of utilization of bio-resources from MCPAs such as fish catch.
- Number of tourists visiting MCPAs during the past six months.
- Status of pollution, waste management, etc.
- Socio-economic benefits accrued to local communities.
- Research works under progress and completed by various individuals and organizations during the past six months.
- New research findings.
- Progress in community participation in management.
- Progress of awareness programs and their impact.
- Details of training programs for different types of stakeholders and organizations.
- Details of seminars, symposiums, exposure tours and workshops organized during the past six months.
- Details of infrastructure development, such as procurement of new vehicles, equipment, etc., and their use.
- Financial resources made available to various government/non-government agencies (please refer format-3 given on page 27 of this document).
- Proposed plan of action for the next six months.

Flow of Information

The above information will be generated by various MCPA units and sent to the NCRTF and the national agencies every six months. The NCRTF will transmit the information after compilation and scrutiny to the national government agency and the regional coordinating agency at SACEP.

Frequency of Information Updation

This information will be updated twice in a year. A uniform format will be developed for the purpose.

Language

This information will be developed, stored and disseminated in all the three types of languages, viz., English, the respective national language, and the local languages.

Accessibility of the Information

This information would be accessible to the regional coordinating agency at SACEP, the national government agencies, the NCRTFs and the MCPAs. These agencies will also update the information every six months.

Module-2: Capacity Building Module (CBM)

The Capacity Building Module (CBM) would address the communication requirement for institutional strengthening. This module will have two broad types of capacity building activities:

- (A) Development of the Capacity Building Plan
- (B) Implementation and Monitoring of the Capacity Building Plan

(A) Development of the Capacity Building Plan (Annual and 5 years)

A capacity building plan would be prepared for each MCPA by the NCRTF. The plan would cover a period of 5 years and would consist of yearly capacity building plans for each year of the plan period. The plan would include the following.

- 1 A comprehensive list of organizations involved directly or indirectly in the coral reef conservation to be covered under capacity building and institutional strengthening programme will be prepared.
- 2 Existing human resource and their present capabilities will be assessed for each of the categories to understand the areas of capabilities.
- 3 Training needs for each category of individuals would be identified.
- 4 A comprehensive list of training organizations capable of imparting training to each category will be prepared.
- 5 Number of training programmes for different themes, desired frequency and duration of each training will be decided for each of the categories covering International, Regional, National and MCPA level.
- 6 Need for exchange of experiences and information dissemination will be taken care of by organizing seminars, workshops, exposure tours, etc for personnel at different levels.
- 7 infrastructure needs of MCPAs will be assessed covering communication equipment - walkie talkie, etc., computers with peripherals and Internet connectivity, Vehicles, Equipments and other requirements.
- 8 Annual financial resources required for the above-mentioned capacity building programs, indicating the resources required for each activity would be estimated.
- 9 Identifying potential funding agencies and the financial resources available from each of them for the above-mentioned capacity building and training programmes.
- 10 Implementing/coordinating agency for the training programme would be identified.

(B) Implementation and Monitoring of the Capacity Building Plan (Annual and 5 years)

Under this module the communication needs for the implementation and monitoring of the capacity building programme would be addressed. The communication under this module would be initiated by the various MCPA units. The communication will include the actual implementation of the monitoring and capacity building plan. This information would be needed at a frequency of every six months. This information would be submitted in the following formats.

The format of the proforma has been given as Annexure-II, Annexure-III and Annexure-IV at the end of this document.

Flow of Information

The above information will be generated by various MCPA units and sent to the NCRTF and the national agencies every six months. The NCRTF will transmit the information after compilation and scrutiny to the national government agency and to the regional coordinating agency at SACEP.

Frequency of Information Updation

This information will be updated twice in a year. A uniform format would be developed for the purpose.

Language

This information will be developed, stored and disseminated in all the three languages, viz. English, the respective national language and local languages.

Accessibility of the Information

This information will be accessible to the regional coordinating agency at SACEP, the national government agencies, the NCRTFs and the MCPAs. These agencies will also update the information every six months.

3.2 COMPONENT- II: Communication System for Generating Awareness (CSGA)

The basic objective of CSGA is to disseminate information, generate awareness and sensitivity and bringing about attitudinal and behavioral change for coral reef conservation.

3.2.1 Specific Objectives of CSGA

The specific objectives of CSGA are as follows :



1. To create mass awareness in the member countries about the significance of conserving marine and coastal bio-resources particularly coral, reefs, and also about the present programme.
2. To promote understanding in various stakeholders about the regional conservation visions, policies, conventions, obligations, etc. and also about national policies, rules and regulations.
3. To institutionalize an interactive communication network for free exchange of ideas and information for the society at large.
4. To facilitate communication campaigns at local, national and regional levels using various media.

3.2.2 Target Groups of CSGA

The major target groups covered under CSGA include policy makers reef-dependent local communities such as fishermen, reef-dependent industries, including tourism industry, School/college university students, teachers, research organizations and the society at large.

3.2.3 Suggested Communication Modes

In this age of rapid development of information technology, the accessibility of latest communication tools have become easy. These tools, such as TV, Cell Phone, internet café (Cyber-café), WiMAX etc. could be effectively used for dissemination of information and awareness generation among the users. Mass communication methods have been successfully used for generating wide scale awareness and building public opinions. As mentioned earlier our experience of environment education also reconfirms the same. However, the efficiency and effectiveness of the communication would depend upon the target group, message, methods of communications and time. Mass communication programmes would cover larger areas for spreading general awareness. Such programmes will be at the regional, country or MCPA levels.

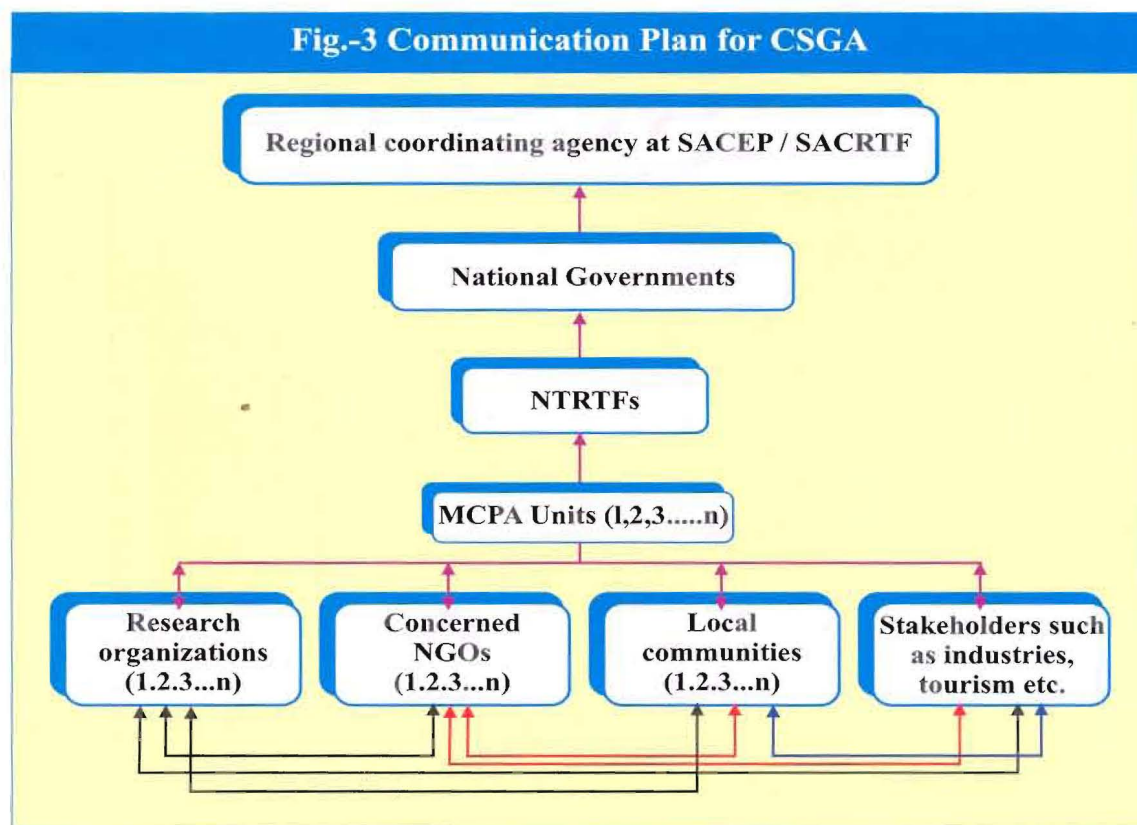
They would include:

- Print media like news papers, newsletters, periodicals, booklets, handouts, posters, banners, displays and exhibitions etc.
- Audio-radio and mobile phone service
- Audio-visual programmes including TV, advertisements
- Web service- web sites, WiMAX, blogs, emails

Locale-specific communication programmes will be used at the MCPA levels and will address to local issues at local levels. They will make use of local language, traditional communication media (street plays, puppet shows, eco-fairs and festivals, rallies, awareness camps, exposure tours, visit to interpretation centre, celebration of days/years etc.), local TV, radio channels, local print media, etc.

3.2.4 Communication plan

A communication plan involving all the agencies and stakeholders have been evolved which is shown in Figure-3.



The MCPAs will be the focal point for two way dissemination of information from the regional and national level to the public.

- The Regional Coordinating Agency (RCA) at SACEP
- The National Coral Reef Task Force (NCRTF) for different countries
- MCPA units

The communication plan at MCPA level will be developed in consultation with NGOs, research organizations and local communities. The communication plan will specify which target groups are to be addressed and by what modes of communication and local language. It will also suggest methods for the dissemination of research and technical information to the society and the local community.

Some components of the research outputs and technical understanding of the issues are required to be converted into simple awareness generation material so that local communities and other stakeholders may get sensitized. Such awareness campaign would

be launched in consultation with the research organizations and NGOs using creative communication methods.

3.2.5 Implementing Agency

This component of the communication strategy would be implemented by the respective national governments and MCPAs. The major part of this component would be implemented by the various MCPA units. The members of the NCRTF and SACRTF will facilitate implementation of communication strategy.

3.2.6 Target Groups and Communication Modes

It is envisaged that different target groups will have different needs and accordingly we may have to develop content/message and use appropriate media. It is also important at this juncture, that the MCPAs could extensively use the traditional low cost media for effectively convey the conservation messages. Table-1 gives the range of communication modes which can be effectively used for different target groups.

Table-1 Target Groups and Communication Modes

Target Group	Communication Mode	Language
Policy makers	<ul style="list-style-type: none"> • Seminars • Workshops • TV programmes • Newsletters • Web Site 	English, national language, and local languages
Reef-dependent local communities	<ul style="list-style-type: none"> • Traditional communication modes • TV programmes • Radio programmes • Eco-fairs • Street plays, Rallies • Celebration of important days • Video films • Animation films, Quickies • Short messages on TV and radio • Exhibitions • Posters • Interpretation Centre 	Local languages

Target Group	Communication Mode	Language
Reef-dependent industries including tourism industry	<ul style="list-style-type: none"> • Seminars • Workshops • TV programmes • Newsletters • Exhibitions • Posters • Web Site • Interpretation Centre 	National and local languages
School/college/university students	<ul style="list-style-type: none"> • Eco-clubs • Exhibitions • Posters • Quiz and other competitions • Web Site • Interpretation Centre 	National and local languages
Teachers	<ul style="list-style-type: none"> • Seminars • Workshops • Orientation Programmes • Newsletters • Web Site • Interpretation Centre 	National and local languages
Funding agencies	<ul style="list-style-type: none"> • Web Site • Print Media • Seminars • TV programmes • Newsletters 	English, national language
Society at large	<ul style="list-style-type: none"> • Seminars • TV programmes • Web Site • Interpretation Centre • Exhibitions • Posters 	National and local languages



4. Institutional Mechanism for Implementing the Regional Strategy

1. The strategy document draft was prepared and presented at 3rd SACRTF Meeting at Chennai and the inputs of the member countries were incorporated.
2. SACRTF from all the 5 coastal member countries is the coordinating agency for implementation of the strategy.
3. NCRTF to coordinate with the SACRTF and also with the NCRTFs of other member countries and various agencies in their respective countries.
4. All NCRTFs will prepare their country level action plans through a process of mutual consultations within their respective countries and with SACEP.
5. SACEP will approach various national and international agencies for effective implementation of communication strategy.

5. Monitoring and Evaluation

1. NCRTF of the respective countries will monitor and evaluate the programme annually in consultation with SACEP.
2. The results of the monitoring exercise along with suggestions for future improvements will be presented by the nodal agencies in an annual workshop specially organized for this purpose by SACEP.

A centralized information conduit will be identified and developed to improve information coordination and experience sharing mechanisms.

6. Timeframe

The communication plans of short term (one year) and long term (five yrs) have been extensively discussed at length in the document. In view of this the strategy will be operationalized within 6 months of the acceptance and funding arrangements by the SACEP and member countries of South Asia.



Annexure -I
Major MCPAs of South Asian Seas member Countries

Name of the Country	Number of MCPAs	Name of major MCPAs	Area of MCPA (In sq kms.)	% of world Total
Bangladesh	01	St. Martin's Island	50	—
India	05	<ul style="list-style-type: none"> • Gulf of Kachchh • Andaman and Nicobar • Gulf of Mannar Lakshwadeep 	5790	2.04 %
Maldives	25		8929	3.14 %
Pakistan	04	<ul style="list-style-type: none"> • Cape Montz • Hingol • Estola Island • Jiwani Gawatar Bay 	50	
Sri Lanka	04	<ul style="list-style-type: none"> • Hikkaduwa National Park 	680	0.24 %

Annexure-II

Physical Progress of Programme Implementation

1. Name of the MCPA Unit :
2. Area / State :
3. Country :
4. Period of Reporting : From to
5. Date of Reporting :

Name and type of organization covered by the training 1	No. of programmes				Individuals covered			
	Planned		Implemented		Planned		Implemented	
	Category 2	No. 3	Category 4	No. 5	Category 6	No. 7	Category 8	No. 9

(Seal and Signature of Competent Authority)

Annexure-III

Financial Progress of Programme Implementation

1. Name of the MCPA Unit :
2. Area / State :
3. Country :
4. Period of Reporting : From to
5. Date of Reporting :

(Funds in USD)

Name and type of organization covered by the training	Source of funding for different activities			Financial resources utilized for different activities			Funds Surplus / deficit ± (4 - 7)
	Planned		Funds actually made available	Planned		Funds utilized	
	Source	Funds		Activity	Funds		
1	2	3	4	5	6	7	8

(Seal and Signature of Competent Authority)

Annexure-IV

Progress of Infrastructural Capacity Building Programme

1. Name of the MCPA Unit :
2. Area / State :
3. Country :
4. Period of Reporting : From to
5. Date of Reporting :

(Funds in USD)

Name and type of organization 1	Planned infrastructural capacity building			Procured		Surplus/d eficit ± (6-4) 7	Source of funds 8
	Type 2	No. 3	Total cost 4	No. 5	Total exp. 6		

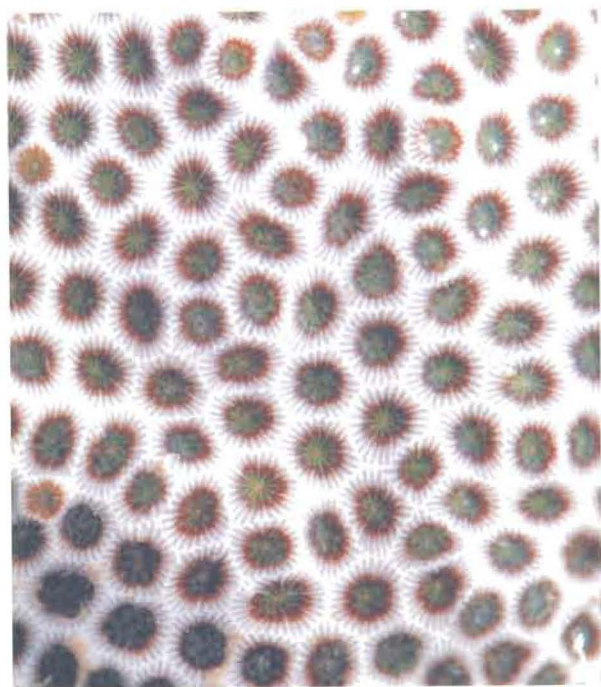
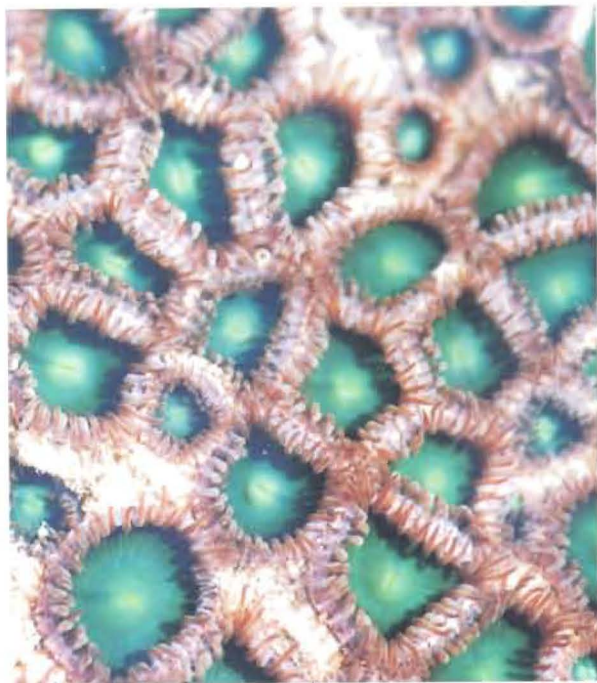
(Seal and Signature of Competent Authority)

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Glossary

CBM	Capacity Building Module
CM	Conservation Module
CSGA	Communication System for General Awareness
CSPO	Communication System for Partner Organizations
GCRMN	Global Coral Reef Monitoring Network
ICRAN	International Coral Reef Action Network
MCPA	Marine and Coastal Protected Area
NCRTF	National Coral Reef Task Force
NGO	Non Governmental Organization
RCA	Regional Coordinating Agency
SACEP	South Asia Co-operative Environment Programme
SACRTF	South Asian Coral Reef Task Force
SASP	South Asia Seas Programme
UNEP	United Nations Environment Programme





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