



# South Asia Coral Reef Task Force (SACRTF) Third Meeting Meeting Report

16<sup>th</sup> December, 2008

Chennai, India



With funding from the European Union

South Asia Co-operative Environment Programme (SACEP)





Lighting of the Oil Lamp by the Hon. Chairman of the SACRTF, Dr. B.P. Nilaratne at the Inauguration.



India and Bangladesh Delegates at the Meeting.



Launching of the 2<sup>nd</sup> Meeting Report at the Meeting.



India and Maldives Delegates at the Meeting.



Launching of the IYOR Plank at the Meeting.



Delegates at the Meeting.



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**SACEP, Sri Lanka  
December 2008**

## CONTENTS

<b>FOREWORD</b> _____	<b>06</b>
<b>ACKNOWLEDGEMENT</b> _____	<b>07</b>
<b>Inaugural Messages</b> _____	<b>08</b>
Welcome address by Dr. Arvind Anil Boaz, Director General, SACEP Address by ICRAN Director, Dr. Kristian Teleki Message from the Guest of Honour Address by Dr. B.P. Nilratna, Hon. Chairman of the SACRTF	
<b>INTRODUCTION</b> _____	<b>17</b>
<b>SESSION 1 – INTRODUCTORY SESSION</b> _____	<b>20</b>
<b>SESSION 2 – COORDINATION AND INFORMATION SHARING SESSION</b> _____	<b>26</b>
COUNTRY PRESENTATIONS	
Country Presentation Bangladesh _____	32
Country Presentation India _____	36
Country Presentation Maldives _____	41
Country Presentation Pakistan _____	44
Country Presentation Sri Lanka _____	49
<b>SESSION 3 – ACTIVITIES OF SACRTF</b> _____	<b>51</b>
<b>SESSION 4 – SACRTF ADMINISTRATION</b> _____	<b>56</b>
<b>ANNEXURES</b>	
<b>Annex A Environmental Education Call For Action</b>	
1. Environmental Education for Conservation of Threatened Coral Resources in the St. Martin's Islands _____	58
2. Awareness Generation Programme for local stakeholders in Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands _____	77
3. Building Youth Constituency to Conserve Coral Reef Ecosystem In Maldives' Baa Atoll _____	82
4. Environmental Education Activities with reference to Coral and Coral Reefs in Marine and Coastal Protected Area, Site, Jewani (Gwater Bay)-Pakistan _____	83
5. Awareness and Capacity Building Programme for The Effective Management of Marine Resources in the Bar Reef Marine Sanctuary, Sri Lanka _____	88
<b>ANNEX B</b> Activity and Events International Year of The Reef (IYOR 2008) _____	<b>93</b>
<b>ANNEX C</b> Projected Annual Operating Costs of the SACRTF _____	<b>95</b>
<b>ANNEX D</b> Meeting Agenda _____	<b>96</b>
<b>ANNEX E</b> List of Participants _____	<b>99</b>
<b>ANNEX F</b> Regional Strategy Presentation _____	<b>101</b>

## FOREWORD

After the success of the two meetings of SACRTF in Sri Lanka and Maldives, this 3rd meeting was organized in Chennai India. It is my privilege to present this report of 3<sup>rd</sup> meeting of South Asia Coral Reef Task Force (SACRTF).

This report presents country reports, progress achieved from the last meeting, wide ranging discussions held among the South Asian Seas member countries on the management of Coral reef and associated ecosystem and recommendations of SACRTF.

It is well known that much progress have been achieved in last 3 years of interaction in executing this EU funded MCPA project on South Asia. The task force gave platform to member countries for effective interactions and sharing of knowledge and experience which can be seen in this report.

As you are aware, Coral reefs are highly complex ecosystem often heavily influenced by the socio-economic system. Very little interaction has been directed among the managers and policy makers in this SAS region. This group has a vital role in developing and supporting environmental management practices. The report on the Managers exchange programme conducted by GEER foundation showed that problems faced in managing this coral reef ecosystem are common to this region. Also community level interaction in the field and visit to Gulf of Kutchchh helped the participants to appreciate the uniqueness of the coral reef ecosystem and the importance of effective managing of this ecosystem.

The implementation of environmental education projects to bring awareness among the school children and public was found to be effective. There is a strong need to maintain and enhance the environmental education which would reach and influence the young segment of population in this SAS region.

The meeting was particularly important as the members gave their inputs to finalize the regional management and commendation strategy plan. Further the task force recommended SACRTF members to impress upon their governments to continue to promote and champion the SACRTF. Also requested that the SACEP Governing Council and the IMM to consider sustained and long term financial support to SACRTF. The task force also requested SACEP, with technical support from IUCN and ICRAN, to develop a regional coral reef project that responds to national interests and priorities, for approval of the Governing Council and explore possibilities of financial support as may be appropriate.

I am of the strong opinion that this report would reinforce the requirement of effective management of coral reef ecosystem and need to continue this coordination for the benefit of coral reef ecosystem in the SAS region.

Dr Arvind Boaz  
Director General SACEP

## ACKNOWLEDGEMENT

South Asia Cooperative Environment Programme and South Asia Coral Reef Task Force are thankful to the Government of India through Ministry of Earth Sciences and Ministry of Environment and Forests for their generous support extended to conduct this 3<sup>rd</sup> meeting of SACRTF in a very short notice.

I recall the 1<sup>st</sup> and 2<sup>nd</sup> meetings of SACRTF. On behalf of SACEP, I express my gratitude to Hon Mr. Ahmed Abdullah, Minister of Environment Energy & Water, Republic of Maldives and Guest of Honour Hon. Mr. Patali Champika Ranawaka, Minister of Environment and Natural Resources, Government of Sri Lanka for their support during the 1<sup>st</sup> meeting in Colombo which set the momentum for us to look forward.

I gratefully acknowledge the contributions of Hon. Minister for Energy, Environment and Water, Mr. Ahmed Abdullah, Republic of Maldives for his valuable suggestions and Mr. Abdul Razzaq Idris Deputy Minister of Environment Energy & Water, Republic of Maldives, for being generous enough to spare his valuable time for the 2<sup>nd</sup> meeting in Male.

I personally thank Mr. C K Sreedharan IFS Principal Chief Conservator of Forests for agreeing to be the Chief Guest in spite of his busy schedule and also for releasing the 2<sup>nd</sup> meeting report and IYOR Souvenirs.

I thank Dr B.P. Nilaratna, Chairperson, South Asia Coral Reef Task Force whose contributions are commendable and he has led this task force to succeed in fulfilling the objectives.

Next I express my special thanks to Hon Patron of SACRTF H E Judge C. G. Weeramantry, Former Vice Chairman, International Court of Justice could not be present here and SACEP and this task force is indebted to him for his active involvement in guiding the SACRTF.

Dr B R Subramanian and Dr Bhatt Government of India are thanked for making arrangements and getting Government approval for the visit of delegates and conduct of this meeting.

I express my gratitude to representatives of SACRTF for sparing their valuable time to attend this meeting and for their contributions as a member of task force and for their involvement and valuable suggestions during deliberations of this very important meeting.

I would like to thank European Union for their generous funding for this programme and also Dr Kristian Teleki Director ICRAN, Ms Nicola Barnard ICRAN and Mr. Jerker Tamelander, CORDIO for their constant support in organizing this event successfully.

Dr Arvind Boaz  
Director General SACEP

## **Welcome address by Dr Arvind Boaz Director General SACEP**

*Dr C. K. Sreedharan, Principal Chief Conservator of Forests*

*Dr B. R. Subramanian, Project Director, ICMAM*

*Dr. Teleki, Director, ICRAN*

*Ms. Nicola Barnard, ICRAN*

*Mr. Jerker Tamelander, IUCN-CORDEO*

*Delegates from Member Countries*

*Ladies and Gentlemen*

I extend my warm welcome to SACRTF members for this very important meeting. I am thankful to Government of India for supporting SACEP in conducting this meeting in a short notice.

I also welcome our Chief Guest Mr C K Sreedharan PCCF for agreeing to inaugurate this function and this shows his commitment to the issues pertaining to the management of our environment.

This SACRTF was established on 21<sup>st</sup> December 2007 which is an important event in the history of SACEP and the South Asian Seas Programme. It saw the inauguration of a ground breaking activity at the first meeting of the South Asia Coral Reef Task Force, which is only the second in the world and the first in the Asian Region. It also saw the beginning of a new era of activity in the management of Coral Reefs in South Asia which at present is facing severe environmental threats, mainly anthropogenic in nature.

Then 2<sup>nd</sup> coordination meeting of SACRTF was held at Male Maldives which saw a meaningful interaction among members I can proudly say that this SACRTF has grown from strength to strength. It has been able to bring policy makers, bureaucrats, experts and grass root level managers on one forum to discuss the problems facing Coral Reef conservation in the region and to learn and implement good practices both from within the region and elsewhere.

Further the Task Force was also able to request the country governments to establish National Task Forces and I am happy to report that Pakistan and India have established their National level Task Forces and the in advanced stages of formation in Bangladesh Maldives and Sri Lanka.

This EU- South Asia Project has been very successful in addressing the issues which the marine and coastal environment, and the people and communities who live there, face in the South Asia region. There have been a diverse range of activities and a great number of project participants for all of the five maritime countries in South Asia and it are my hope that this network will continue well beyond the life of the project. There have been a number of important workshops and activities to build and develop capacity in the region, as well as provide opportunities for exchanging information and knowledge, and raising the profile of the importance of coral reefs and MCPAs.

Under this project, and with the support of the South Asia Coral Reef Task Force (SACRTF), five small action grants are available for environmental education and outreach activities at the following participating MCPA sites.

- St. Martins Island, Bangladesh
- Mahatma Gandhi National Park, Andaman Islands, India
- Baa Atoll, Maldives
- Jiwani (Gwater), Pakistan
- Bar Reef, Sri Lanka)

SACEP could coordinate with five member countries to undertake projects on awareness about coral reef conservation and management. I would like to congratulate the member countries for taking these projects very seriously and executing it successfully. Even though funding provided by the EU was only 5000 USD the efforts taken to spread the awareness and knowledge among the school children and public has been one of the major achievement of the project. I am confident that member countries would continue these activities as a part of their national programme.



The Year 2008 has been designated as the 'Year of Reef'. SACEP has been selected to bring awareness. During the IYOR, member countries had conducted many programmes and activities.

The Patron of the Task Force H. E. Judge C. G. Weeramantry who could not be present today has given the Task Force the necessary international recognition and his continued commitment is indeed a source of great encouragement.

Next this remarkable achievements made by this task force are due to the untiring efforts extended by our Chairman Dr Nilaratne. He is also the guiding force behind us in this endeavour. I place on record, the unstinted support given by Dr Pandey and GEER foundation on conducting the Managers training and for preparing the regional strategy which will be presented here. This progress could be achieved only due to involvement of many of you present here. SACEP thanks every one of you.

The presence of gathering of experts from national and international community is indeed a matter of pride and gratitude to us. I am confident that during this third meeting of the SACRTF, the representatives would focus on the progress made by Task Force till date, the role of National level iterations of the Task Force, the future work plan, policy and administrative issues of the SACRTF.

I would like to remind representatives that the funds generously provided by the European Union for the establishment of the SACRTF would cease on 31<sup>st</sup> December 2008, and therefore the development of a sustainable financing mechanism or the successful institutionalisation of the SACRTF over the course of 2008 is key issue towards the continuation of this unit. I am sure that members would discuss this critical issue and would bring to the notice of their Governments on the success of the SACRTF and need to continue this activity.

Today we are here it is due to the systematic coordination and support rendered by Dr B R Subramanian and Dr Bhatt on behalf SACEP and I personally welcome them.

Finally on behalf of SACEP I extend our fullest support and wish all success to members for a meaningful interaction and a comfortable stay here.

Thanking you



## **Address to the South Asia Coral Reef Task Force ICRAN Director - Kristian Teleki**

Honourable guests,  
Colleagues and friends

Together, three years ago, we embarked on the ambitious EU South Asia Marine and Coastal Protected Areas Project that encompassed a wide range of activities designed to conserve and manage the marine environment and its resources, while at the same time recognizing that millions of people in the region are dependent on coral reefs for food resources and income. As with any large project it has not been without its challenges but with any challenge there are opportunities – of which there have been many in this project that have also lead to a great many successes –some of which we will hear about over the next two days.

The project itself has directly benefited over 400 people (a number that is likely to increase once all activities have been reported) from all five maritime countries of South Asia through 26 regional and site based workshops. These workshops and activities have built and developed capacity in the region, as well as provide opportunities for exchanging information and knowledge, and raising the profile of the importance of coral reefs and MCPAs.

It is established (and renewed) a great many partnerships, collaborations and networks, and it is our hope that these networks will continue well beyond the life of the project.

This project was designed to establish a framework and foundation by which subsequent activities could build upon for future activities in the region. This is also an opportunity for the SACRTF to mainstream the outcomes and products of the projects into national governmental and non-governmental marine and coastal activities where relevant and appropriate. Hopefully through Task Force encouragement and promotion this will reach many others who have not been part of the project or directly benefited in the first instance.

Project activities have demonstrated diverse and wide ranging successes at the regional, national and local level, many of which have taken on a life of their own and are likely to continue into the future. Highlights of the project fall into the areas of:

- Economics: Developing a more systematic approach to livelihood enhancement and diversification which responds to the actual realities and needs of coastal communities.
- Enforcement: Coral Reef Crime Scene Investigation
- Management: MPA Managers Toolkit for South Asia
- Education and Awareness: local environmental grants
- Communication and Policy: South Asia Coral Reef Task Force

As you know one of the main pillars of the project was to establish a task force that would serve to help coordinate the region's approach to managing its coral reefs and adjacent ecosystems. It was hoped that the task force would be a conduit for information and sharing of knowledge, a platform for collaboration and a unified voice at the global level when reporting on the coral reef successes and challenges of the region particularly in the context of the International Year of the Reef, the Convention of Biological Diversity and its marine programme of work and the 2010/2012 MPA targets.

As you are no doubt aware from previous meetings the establishment of the South Asia Coral Reef Task Force has been noted and very much welcomed at the international level – particularly through the International Coral Reef Initiative (ICRI). Many are hopeful that not only will this be a dynamic and living legacy of this project but that through your leadership and commitment it will continue well into the future.

The recent release of the Status of Coral Reefs of the World report hopefully reinforces our collective resolve to continue to work to halt the alarming trend of coral reef decline. It is therefore particularly fitting that the South Asia Coral Reef Task Force meets today to not only consider its future but to consider its potential to effectively and realistically address what can be done to alleviate the ever increasing pressures on coral reefs in order to promote recovery and enhance resiliency within these fragile systems.

During today's Task Force meeting there a number of critical issues which need to be addressed which will benefit from your collective experience, wisdom and guidance. I recognize that the sustainability of the South Asia Coral Reef Task Force remains difficult to answer, however I want to challenge all of you today. By the time the meeting closes I would like to propose that you agree on three to five concrete steps which are achievable and that you all agree to take in order to keep the momentum of the Task Force going. This may range from simply agreeing to circulate an email with highlights of your coral reef activities to developing proposals in support of the Task Force. The Task Force needs your stewardship, vision and commitment so that it will continue to flourish and be a beacon of inspiration for all those in the region who are working to ensure that fish will still be on the table in generations to come and that coral reefs have an environment in which they will thrive.

I think that you will agree that with such an august composition and esteemed leadership that the South Asia Coral Reef Task Force will continue to evolve and move from strength to strength.

Before finishing I would like thank Dr Nilaratna for finding the time in his busy schedule to attend the meeting and for his continued able chairmanship of the South Asia Coral Reef Task Force. I am also grateful for Dr. Bhatt being able to attend as well.

I would also like to thank our patron the Honourable Judge Weeramantry who continues to provide support and leadership to the South Asia Coral Reef Task Force, and would like to recognize his efforts to champion environmental issues which are of great concern to us all.

I would like to thank Dr. Boaz, Mr. Hiran Tillekaratne and the staff of SACEP who have worked very hard to ensure that the meetings of the South Asia Coral Reef Task Force occur with such efficiency. Dr. Boaz has also worked hard to promote the Task Force in the wide range of meetings he has attended over the last year which has been very welcome.

I would like to acknowledge and thank our local focal point Dr. B R Subramanian and his colleagues at the National Institute of Ocean Technology here in Chennai for their assistance in organizing this meeting.

Also I thank our donors and partners: the European Union, Government of Finland, Global Environment Facility, IUCN (particularly Jerker Tamelander and Gaya Sriskanthan), Reef Check, UNEP, UN Foundation and the Mangroves for the Future Project.

Finally, but not least, I would like to thank Nicola Barnard who has worked tirelessly with dedication and enthusiasm to ensure the successful implementation of the EU South Asia MCPA Project.

Although the EU South Asia MCPA Project will come to an end this month it is my hope that its legacy will continue as there is much to accomplish.

It has been a great pleasure and a very positive experience for ICRAN to be working in this region and we have enjoyed working with all of you, and I am confident that this is not the end but the start of much more.

Thank you.

**Address by Dr. B.P. Nilaratna, Chairperson, South Asia Coral Reef Task Force  
(SACRTF)**

Mr C. K. Sreedharan, Principal Chief Conservator of Forests  
Dr Arvind Boaz, Director General, SACEP  
Dr B. R. Subramanian, Project Director, ICMAM  
Dr. Teleki, Director, ICRAN  
Ms.Nicola Barnard, ICRAN  
Mr.Jerker Tamelander, IUCN-CORDEO  
Delegates from Member Countries  
Ladies and Gentlemen

It is my pleasure and privilege, as a Chairperson of the South Asia Coral Reef Task Force (SACRTF), to welcome you all at this 3<sup>rd</sup> coordination meeting of SACRTF at Chennai. I hope you will have comfortable stay in this beautiful city.

It is heartening to note that delegates from all the five South Asian Countries, namely, Pakistan, Bangladesh, Maldives, Sri Lanka and India have spared their valuable time and made it convenient to participate in this meeting.

The objectives of the meeting are to discuss the progress of SACRTF from the 2<sup>nd</sup> meeting held in Maldives. The meeting will discuss progress and major initiatives related to MCPA, SACRTF work plan, new key policy developments and communication strategy. The meeting would also like to develop Sustainable Financing and Institutionalization of SACRTF, both regional and national levels. Since we are at the end of IYOR, the progress of IYOR activities would also be discussed. The Gear Foundation, Gujarat, was entrusted the task for developing the regional strategy for South Asia. We will discuss the Draft Strategy prepared by them.

You would recall that the establishment of the South Asia Coral Reef Task Force (SACRTF) was done to facilitate and coordinate in the management of coral reefs and associated ecosystems at a national level, and to promote collaborative action at the regional level, encouraging trans-boundary responses to shared environmental challenges and raising the political and public profile of coral reef related issues in the South Asia region. As the Chairperson, I was greatly honoured by the confidence placed in me by the participating SACEP countries. I hope the Task Force will make every effort to fulfil the tasks assigned to it.

In the last meeting of SACRTF held in Maldives, the Member Countries were urged to establish the national level task force early, where it has not been done so far. I am sure some progress must have been made in this regard.

Coral reefs are the “rainforests of sea”. They are the repositories and storehouses of biological diversity. Despite current protection measures, one third to half of the coral reefs of South Asia is now effectively dead and a further 30% threatened. It is beyond doubt now that coral reefs have been degrading alarmingly in the last few decades and this is likely to get aggravated by anthropogenic changes.

It is true that the international community has become conscious of the anthropogenic effects on coral reefs but it will take several years for the deleterious effects to fade off. Could our reefs survive still then? Could we limit human exploitative and invasive impacts so that we give the reefs a fair chance to recovery? These questions are all the more important in our region where the very economy of SACEP member countries of virtually is driven by the well-being of coral reefs.

All organisms have a right to live and perpetuate and we should develop not merely a sense of humility but also responsibility to protect all life on this little planet. The new threat now has emerged is that of “climate change”. The world attention has now been focused on advance effects of Global Warming. We have to protect reefs from such bad effects of Global Warming. The year 2008 has been designated as the ‘International Year of Reef’. Let us strive together to conserve, protect and manage coral reefs of South Asia region for both present and future generations.

During the IYOR 2008, I am sure the participating countries must have initiated many programmes and activities and new initiatives. It would be very useful to share them with the SACEP and other member countries and delegates.

As you are well aware four coral reef sites are in India. The senior officials managing these sites are present in this meeting. I am sure their vast experience would be a great source of knowledge, which will be shared with other delegates.

India has initiated a number of activities and programmes during the IYOR 2008. Some of them are briefly mentioned here:

1. Lakshadweep Coral Reef meeting with coral reef stakeholders in January 2008 at Lakshadweep
2. National meet on Conservation and Management of Indian Coral Reefs, 2008 being organized at Andaman's
3. India assisted in Regional Training Workshop on "Managers Exchange Programme and coastal protected areas" in November 2008 at Gear Foundation, Gujarat. Over 24 participants were trained including participants from five SACEP Maritime States
4. Then there are some very important new key policy developments:
  - Implementation of National Environmental Policy (2006)
  - National Biodiversity Action Plan
  - Fourth Country Report on Biodiversity being prepared (2008)
  - National Committee Meeting on Mangroves and Corals, March 2008, Dr.A.A.Boaz was a special invitee to the meeting
  - Wild Life Protection Act amended to highlight community protected areas

The commonality among our countries, our cultures and our perception of the reefs and their uses should augment our collective creativity for their conservation and protection.

I hope this 3<sup>rd</sup> meeting of South Asia Coral Reef Task Force will further our efforts on protection and conservation of our coral reefs. I once again welcome you all to India.

I wish you all productive and fruitful deliberations and comfortable stay in this beautiful city of Chennai.

Thank you

**Message from H.E Judge C. G. Weeramantry, Former Vice Chairman,  
International Court of Justice & H E Judge Patron of SACRTF**

*Read by Mr. Neshan Gunasekera, Deputy Director, Weeramantry International  
Centre for Peace Education and Research (WICPER)*

I congratulate South Asia Coral Reef Task Force on another year of purposeful activity and regret my inability to be present to discuss its activities in the forthcoming year.

An important aspect of the activities of such dedicated environmental organizations is education of the public at all levels from the school room to the university and to the general public. Without a heightened environmental consciousness the environment cannot be protected and preserved. Whether it is the protection of the coral reefs or any other area of environmental damage, the damage will continue to be inflicted if the public is unthinking and uncaring. On the other hand a sensitized public will tend not only to prevent continuing damages but also to take meaningful action to prevent damages already inflicted.

Education is an integral part of the process and the Weeramantry International Centre for Peace Education and Research is very appreciative of the support it has received from South Asia Co-operative Environmental Programme in the past year for promoting such activities. In particular we have tried to reach university students from across the country and believe that with the assistance of South Asia Co-operative Environmental Programme we have been able to stimulate in them a determination to do something both individually and collectively to convey this message to their communities and to take positive action towards the protection of the environment.

I wish to express my appreciation of the forward looking work done by South Asia Co-operative Environmental Programme through the Task Force created for the protection and conservation of the Coral Reefs of our region, the leadership given to it by Dr. Arvind Boaz and the very practical measures it is taking to address environmental problems of particular importance to the South Asian region.

Thanking you

## **Address by Dr. B R Subramanian Project Director, PD-ICMAM Government of India**

Dr Arvind Boaz, Director General, SACEP  
Dr C K Sreedharan PCCF  
Dr B.P. Nilaratna, Chairperson, South Asia Coral Reef Task Force (SACRTF)  
Dr. Kristian Teleki, Director, ICRAN  
Mr Neshan Gunasekara  
Delegates from Member Countries  
Ladies and Gentlemen

I have a long association with SACEP and had the opportunity to involve in the activities of SACEP. This South Asian Coral Reef Task Force has contributed to bring awareness on the importance of coral reef ecosystem. I am confident that the interaction among the member countries would be of immense help in effective management of MCPAs.

Our Institute had surveyed and prepared document on the coral reef and associated flora and fauna in 21 Islands of Gulf of Mannar as a part of Integrated Coastal and Marine Area Management programme. From our experience it can be said that such detailed surveys should be conducted for other Coral reef areas in the SAS region.

I recall the GCRMN activities executed earlier on coral reef ecosystem in India and I was also associated with that programme. I am sure this regional coordination through the task force would continue their work for the effective management of Coral and associated ecosystem in South Asian seas.

I thank European Union, ICRAN, IUCN, CORDIO and SACEP for supporting such a programme which is very relevant to this SAS region.

I also welcome all delegates and wish you for a fruitful interaction during this meeting. We have taken all efforts for your comfortable stay here and you may contact us for any of official requirements.

Thanking you

## **Address by the Chief Guest Mr C K Sreedharan IFS, PCCF Tamil Nadu**

Dr Arvind Boaz, Director General, SACEP  
Dr B.P. Nilaratna, Chairperson, South Asia Coral Reef Task Force (SACRTF)  
Dr B. R. Subramanian, Project Director, ICMAM  
Dr. Kristian Teleki, Director, ICRAN  
Mr Neshan Gunasekara  
Delegates from Member Countries

I welcome you all to this beautiful city Chennai and in our language Tamil "Vanakams" to all of you. On behalf of Department of Environment and Forests Government of Tamil Nadu, I invite the distinguished delegates to visit the Vandaloor Zoo located in this city.

As I understand that the South Asia Coral Reef Task Force has been initiated to facilitate and coordinate the management of coral reef ecosystem and associated ecosystems in the South Asian Seas region. I am very glad to hear that five member countries have initiated this important management of marine and coastal areas in their respective countries. This coordinated efforts started in a small way should continue even after the completion of this project in December 2008.

Our country is embarking in the task of formulating Coastal Zone regulatory mechanism and I am sure deliberations to come in this meeting would be of useful in this regard. It is now realized by national or regional or international agencies on the urgent need on protection and conservation of marine ecosystems. As you are aware, Global warming due to the effect of anthropogenic activities have brought more focus towards the sea. This renewed interest is due to the major role played by the seas in sequestration of Co<sub>2</sub>.

As a student worked on mangrove ecosystem, I can say that energy being involved in the mangrove ecosystem cannot be matched with any other ecosystem or organism and is very unique in nature. We have been successful in our efforts in conservation and management of mangroves.

Out of four MCPAs in this country, the Gulf of Mannar is located in this State of Tamilnadu. This is the first Marine Biosphere Reserve to be established in India in 1989 and also first in South Asia. This unique ecosystem has more than 3,500 organisms and nearly 20% are endemic. Also Gulf of Mannar Biosphere Reserve Trust (GOMBRT) was established by the Government of Tamil Nadu. This was the precursor for the implementation of GEF-UNDP-GOI-GOTN Project. Here the coral mining was continuing unabated for the lime stone Industry until few years. After implementation of strict control measures by authorities and by educating the stakeholders, now it is completely stopped in Gulf of Mannar area. But this had already done irreparable damage to coral ecosystem. It should be noted that the development and conservation are two different activities but they should go hand-in-hand for the management of marine environment.

The problems faced by our country are common to other neighbouring countries in this region and I am sure the interactions among the task force members during this meeting can evolve the strategy to be adopted for the effective management of this unique ecosystem I am thankful to SACEP for giving me this wonderful opportunity to be present here I wish all the delegates a very successful meeting

Thanking you



## **South Asia Coral Reef Task Force (SACRTF)**

### **Introduction**

The South Asia region was ranked the lowest in the world in terms of declared marine and coastal protected areas (MCPAs) in the 2003 United Nations List of Protected Areas. In addition, the inclusion of essential coral reef habitat in MCPA provisions is minimal, making the Indian Ocean, with its wealth of coral reefs, seagrasses, and mangrove forests, perhaps the most poorly protected ocean. As a result, the degradation of coastal and marine resources continues at an unprecedented rate, and despite current protection measures, one third to half of the coral reefs of South Asia are now effectively dead, and a further 30% threatened.

The 2008 Status of Coral Reefs of the World report identifies limited interagency and governmental cooperation as an inhibitor to effective resource management across the South Asia region and recommends inclusive collaborative approaches to resource management.

Through the EU funded South Asia MCPA Project the South Asia Coral Reef Task Force (SACRTF) was established to facilitate and coordinate the management of coral reefs and associated ecosystems at a national level, and to promote collaborative action at the regional level, encouraging trans-boundary responses to share environmental challenges and raising the political and public profile of coral reef related issues in the South Asia region.

### **Approval**

The establishment of the SACRTF was endorsed by the country Governments of the 5 maritime nations of South Asia, at the SACEP 10<sup>th</sup> Governing Council (GC) Meeting in 2007 and further ratified by the 11<sup>th</sup> GC and 4<sup>th</sup> Inter Ministerial Meeting (IMM) of South Asian Seas Programme in 2008 in Jaipur India.

### **Mandate and Structure of the SACRTF**

Through extensive consultation with key regional stakeholders, the role, mandate and structure of the SACRTF was developed, and the resulting constitution document endorsed by the participants of the second regional resource coordination workshop held on the 25-27<sup>th</sup> July 2007, in Colombo, Sri Lanka. SACRTF representatives have been selected in accordance with the constitution document and regional nominations.

### **Report Introduction**

The 3rd meeting of the South Asian Coral Reef Task Force was held at the Hotel Savera in Chennai, India.

The meeting was made possible through generous funding from the European Union, and was coordinated by Government of India through Project Directorate - Integrated Coastal and Marine Area Management (ICMAM), Ministry of Earth Sciences and Ministry of Environment and Forests.

### **Attendance**

The meeting was attended by South Asian Seas member countries Bangladesh, India, Maldives and Sri Lanka. See Annex F for extended participant list. Pakistan expressed their regret at not being able to participate in this meeting, however provided a detailed report and presentation to be made on their behalf. The Honourable Patron, Dr Weeramantry, could not attend this meeting due to existing commitments, but was represented by Mr Nishan Gunasekara. This meeting was also attended by Dr Kristian Teleki, Director ICRAN, Ms Nicola Barnard, Senior Programme Officer ICRAN and Mr Jerker Tamelander, CORDIO. Principal Chief Conservator of Forests (PCCF) from four MCPAs in India were specially invited to present their local coral reef and MCPA related activities.

## **Objectives**

The third official meeting of SACRTF representatives was called to discuss the progress made on the SACRTF work plan to date; to explore further the role of national level iterations of the SACRTF; and to identify opportunities for the continuation of the SACRTF beyond the life of the South Asia MCPA Project.

The EU funding provided by for the establishment of the SACRTF ceased on 31 December 2008, upon the closure of the South Asia MCPA Project. The development or identification of a sustainable financing mechanism or the successful institutionalisation of the SACRTF has been a priority action for SACRTF representatives since the establishment of this body in 2007. This third meeting reviewed progress in this regard and key issues for the continuation of this body.

## **Inaugural function**

The welcome address was delivered by Dr. A. A. Boaz, Director General SACEP, and a special address was given by Dr. B. P. Nilaratna, Chairperson, South Asia Coral Reef Task Force (SACRTF). The message from Hon. Patron Judge C. G. Weeramantry, Former Vice Chairman, International Court of Justice, was read by Mr Nishan Gunasekara, Deputy Director Weeramantry International Center.

The meeting was inaugurated by Dr. C. K. Sreedharan Principal Chief Conservator of Forests Tamil Nadu who delivered the inaugural speech and also released the report of the second meeting of SACRTF. A 2009 Calendar developed by the SACRTF in support of the International Year of the Reef (IYOR 2008) and a commemorative plaque and mug bearing the SACRTF logo were also launched and celebrated at the meeting.

## **Meeting**

The provisional Agenda prepared by SACEP and ICRAN was adopted.

The following office bearers were elected to conduct this meeting

Chairman	Dr. B. P. Nilaratna
Member Secretary:	Dr. A. A. Boaz
Rapporteur	Dr. Venkatesan

The meeting was organised to the following sessions:

Session 1 – Introductory Session  
Session 2 – Coordination and Information Sharing  
Session 3 – Activities of SACRTF  
Final Recommendations

The member countries presented their activities conducted under the Environment Educational Grant Programme and provided reports on national efforts to manage coral reefs and associated ecosystems at the 5 project focal MCPA sites.

Dr Boaz highlighted activities and events conducted by the SACRTF during the International Year of the Reef (IYOR 2008) and he led the discussion on the SACRTF administration matters.

Dr Kristian Teleki presented the genesis of the projects and achievements made in this SAS region by the SACRTF and stressed the need for sustained coordinated efforts on the management of MCPAs in South Asia.

Mr Jerker Tamelander presented the key outputs and impacts of the Coral Reefs and Livelihoods Initiative, a collaboration of the South Asia MCPA Project in support of coastal communities in South Asia, and brought to the notice of the members 3 new publications relevant to this area of implementation.

Ms Nicola Barnard presented a final update on the achievements and progress of the South Asia MPCA project under which the SACRTF was established.

Finally Dr. C.N. Pandey presented draft document on the Regional Strategy for coordinated responses to marine and coastal issues within the South Asia region.

### **Significant achievements of the SACRTF**

- Establishment of South Asia Coral Reef Task Force with an agreed mandate and nominated membership;
- 3 official meetings of members since the official establishment of the SACRTF;
- Coordination with local partners to implement environmental education projects at MCPAs in five countries to raise the profile of coral reefs and marine and coastal protected areas;
- Implementation of a training and exchange programme for MPCA managers from across the region, using the resource 'Managing Marine and Coastal Protected Areas: A Toolkit for South Asia', hosted by GEER Foundation;
- Mass awareness raising events conducted as a part of IYOR activities, including the release of calendars and souvenirs and the nomination of Sri Lankan Cricketer as a Brand Ambassador. See: [www.iyor.org/focalpoints/orgs/SACRTF/default.asp](http://www.iyor.org/focalpoints/orgs/SACRTF/default.asp)

### **Overview of Discussions**

- The progress achieved by the South Asia MPCA project during the course of the last 3 years is significant and the project has been successful in achieving its objectives;
- All members unanimously agreed that SACRTF should continue its work beyond the completion of this project ( 31 December 2008);
- Members agreed that the achievements of the SACRTF should be brought to the notice of Inter Ministerial Meeting (IMM) and a working group will be constituted, lead by SACEP, to develop a proposal for the continued funding and operation of the SACRTF;
- In the interim period SACEP would continue to coordinate SACRTF activities in the capacity of Member Secretary, and will nominate a member of staff to continue SACRTF communications and liaisons;
- Pakistan and India have formed their National Coral Reef Task Forces and other member countries were urged to continue efforts to establish a National Coral Reef Task Force;
- The publication 'Managing Marine and Coastal Protected Areas: A Toolkit for South Asia', as prepared under the wider project, was found by members to be very useful and relevant for managers in the region;
- The efforts taken to spread environmental awareness on coral reef ecosystems and MCPAs were effective with minimal funding and should continue, using local languages which can help in wide dissemination and outreach to the public, particularly to children;
- The South Asia MPCA Information Portal is an exciting new resource for the region, and should be updated with inputs from member countries.

## **SESSION 1 – INTRODUCTORY SESSION**

This third meeting of South Asia Coral Reef Task Force (SACRTF) was held on 16 December 2008 in Chennai India. This meeting was attended by four member countries: Bangladesh, India, Maldives and Sri Lanka. Pakistan could not attend the meeting and this occasion and the report received from Pakistan was presented by SACEP.

The introductory session was organised in the following manner:

- Introduction and Progress of SACRTF from the last two Meetings
- Environmental Education Call for Action Grants - Final Reports and impacts
- Progress of IYOR Activities
- Report on the Managers Exchange programme hosted by the GEER Foundation in November, 2008

### **Introduction and progress of SACRTF from the last two meetings**

The introductory presentation and progress achieved by SACRTF was presented by Dr Boaz, Director General SACEP, who thanked the SACRTF Chair for his leadership and commitment to the SACRTF. Dr Boaz highlighted the efforts taken by SACRTF to raise the profile of coral reefs and MCPAs in the region as detailed below.

### **Environmental Education Call for Action Grants**

#### **GOAL**

To raise awareness of the importance and value of coral reefs and associated ecosystems, and to explain to the public the long-term, sustainable benefits of MCPAs in the local context.

#### **Areas of focus/Action**

Under the EU funded project, and with the support of the South Asia Coral Reef Task Force (SACRTF), five small action grants were made available for environmental education and outreach activities at the following participating MCPA sites:

- Environmental Education for Conservation of Threatened Coral Resources in the St. Martin's Islands -Department of Environment Nature Conservation Management (NACOM), Bangladesh
- Awareness Generation Programme for local stakeholders in Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands-Department of Environment and Forest, India
- Building Youth Constituency to Conserve Coral Reef Ecosystem In Maldives' Baa Atoll -Ministry of Environment, Energy and Water, Government of Maldives.
- Environmental Education Activities with reference in Marine and Coastal Protected Area- Sindh Wildlife Department, Pakistan.
- Development of Capacity of the Department of Wildlife Conservation for the Management of the Bar Reef Marine Sanctuary- Department of Wildlife Conservation, Sri Lanka.

Each member country received a grant of US\$5000 for locally driven and relevant activities to build mass awareness of marine and coastal resources and the role of MCPAs in their protection. Each country presented a report on their activities. The detailed reports of the member countries are presented in the annexes of this document.

Sri Lankan representatives noted that the small grants, which facilitated workshops, consultations between stakeholder groups, art competitions and schools awareness raising, had given the Wildlife Conservation Department an opportunity to see their role in marine conservation and build partnerships with the relevant organizations to affect greater protection of these important environments.

The progress report of Pakistan was presented by Mr Hiran Tilakaratne from SACEP. The report highlighted how the small grant and participation in the SACRTF has raised the profile and priority of coral reefs within government, leading to the establishment of a national level task force for coral reefs.

While it has not historically been easy for South Asian governments to accept small contributions from donors, all projects highlighted that small grants of this nature can have large impacts on the ground at the site level, reaching large numbers of people.

The SACRTF was congratulated by Indian representatives for embarking on this initiative, and Bangladesh colleagues urged governments to consider these efforts as initial steps taken by partner countries which should be maintained and continued. Maldives representatives also noted the role of small grant funding in providing excellent foundations that can be built upon and linked to ongoing or new initiatives.

### **Progress of IYOR Activities**

The report on the Progress of International Year of Reef Activities was presented by Dr Boaz. Key SACRTF achievements in support of IYOR included:

- The selection of Mr. Kumar Sangakkara, wicket keeper and batsman of the Sri Lanka Cricket team, as Ambassador for raising the profile of the SACRTF and IYOR activities in South Asia.
- A regional school essay, posters & painting competition among the five maritime nations leading to over 3600 entries and involving over 100 schools. The main theme being "Help Conserve Coral Reef in South Asian Region".
- A Beach Cleaning Day with a public festival / street parade to celebrate coral reefs in India and Sri Lanka.

Full details of SACRTF efforts to support IYOR 2008 can be found on the dedicated SACRTF webpages. <http://www.iyor.org/focalpoints/orgs/SACRTF/default.asp>

### **Managers Exchange program in the Marine National Park in the Gulf of Kuchch, Jamnagar India from 5<sup>th</sup> to 8<sup>th</sup> November 2008**

During the second meeting of SACRTF the Government of India nominated the Gujarat Ecological Education and Research (GEER) Foundation to host an exchange programme for MCPA managers. The exchange training took place on 5<sup>th</sup> to 8<sup>th</sup> November 2008.

In his report of the exchange, Dr Pandey, Director GEER Foundation, noted how coral reefs are often quite isolated ecosystems, as demonstrated by the four distinct coral reef areas of India, and highlighted how simple exchange programmes to link peers can be of immense local benefit through exposure to new information, technologies and networks. The interactions of regional managers and fishermen was especially important during the South Asia exchange, with fishermen confirming that fish species were returning with the restoring mangroves, and managers gaining a better sense of the small and important actions they can take to improve resource management, communication and information sharing both locally and regionally. The exchange programme was also designed around 'Managing Marine and Coastal Protected Areas: A Toolkit for South Asia, and used to introduce this important new resource to managers from the region.

Excellent feedback was received from all participating country governments and a request was made by the Director General of SACEP, for all countries to carry forward the exchange of knowledge that already exists in the region.

In the vein of sharing regional best practices and information, ICMAM PD India highlighted the low cost mooring buoy design by National Institute of Ocean Technology which could be of value to colleagues from across the region. The role of the International Tropical Marine Ecosystem Management Symposium was highlighted as a useful forum to support exchanges between managers, and the South Asia Toolkit recognised as a useful and regionally appropriate resource to support managers in their efforts.



### **Recommendations**

- It was noted that the efforts taken to spread the awareness in local languages can help to engage and share conservation messages with local people
- SACRTF members accepted that on the basis of the success achieved in these environmental education projects similar such awareness campaigns should continue with the stakeholders in other coral reef areas as well.
- The managers exchange program was noted as a very successful event with participation of all five member countries and country governments were requested to carry on the exchange of information across the region, necessary for the management of MCPAs.
- The Government of India recommended countries work towards the translation of 'Managing Marine and Coastal Protected Areas: A Toolkit for South Asia' into local languages to facilitate its use and wide uptake across the South Asia region.

## Mangers Training Programme at GEER Foundation, India.-Dr. A.A. Boaz

Managers exchange program in the Marine National Park in the Gulf of Kachchh, Jamnagar  
5<sup>th</sup> to 8<sup>th</sup> November 2008  
Bangladesh, India, Maldives, Pakistan, and Sri Lanka

Gujarat Ecological Education and Research (GEER) Foundation, Gandhinagar Gujarat, India

First Marine National Park of the country-declared in 1982, although Marine Sanctuary was constituted in 1980

Gulf Area 7,500 sq. km.



Total area : 457 sq. km.  
Islands 42 with 33 having coral reefs



Opportunities of learning

- Long history of coral reef conservation-23 years
- First Marine National Park of India
- Diversity of marine habitats-coral reef, mangroves, sea grass bed, eelgrass bed ...
- Biological diversity
- Good research and educational activities
- Large number of stake holders
- Rich fishery area-high dependency of fishermen
- Support threatened marine species
- Largest area of coastal wetland of India in the Gulf of Kachchh

ZONING IN THE GULF OF KUTCH


How management of MPA in India is different from other parts of the world?

Policies and legislation-IFA 1927, WPA 1972, FCA 1980, EPA 1986, CRZ Act 1991

Organisational set up

Complexity of stakeholders

Research and education activities






### MANGROVES

- Mangroves in Gujarat 936 sq. km.
- Mangroves in MPA - 150 sq. km.
- Total core species of mangroves - 7
- 204 sp. of flowering plants and 120 species of algae



### Impressive Mangroves Restoration A most successful mangrove restoration in the world




### Mangrove's



### CORAL REEFS

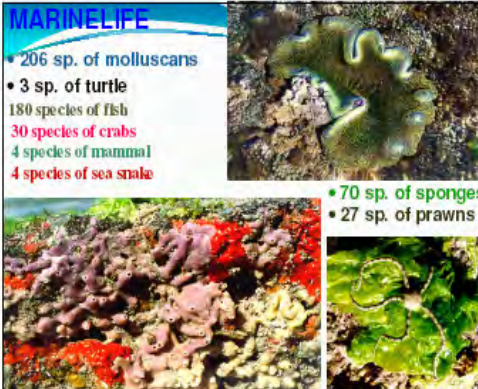
2 species of corals



Dead and live coral reef  
460 sq. km

### MARINELIFE

- 206 sp. of molluscans
- 3 sp. of turtle
- 180 species of fish
- 30 species of crabs
- 4 species of mammal
- 4 species of sea snake



- 70 sp. of sponges
- 27 sp. of prawns

### 190 species of birds



2300 pairs of birds of over dozen species nested on mangrove trees in a part of area in the park in 2000




**Programs**

First Day: Inauguration at GEER Foundation, Gandhinagar

- Presentation by experts and discussion on Program on coral conservation in India
- Marine National Park, Jamnagar-conservation and management
- Research works on coral reef and associated habitats in the Marine Park by GEER Foundation
- Presentation by expert and discussion
- Institutional and organizational arrangement for managing Marine National park
- Community participation in mangroves and sustainable use of coastal resources- by GEC
- Mapping the coral reefs and other associated habitats

**Second Day**

Experience sharing-Presentation by the managers of the MCPAs of South Asian Nations and discussion



Visit to islands of the Marine National Park in the Gulf of Kachchh to study coral reef conservation

**Third Day: at Jamnagar**

Presentation by Director, Marine National Park on conservation, management of the park-issues of conservation-discussion




Visit to the park to see and study Mangrove's restoration by the department & industries sustainable use of resources by local people Ecological education activities-discussion



**Fourth Day: Presentation by national expert**

- Visit to islands of the Marine National Park in the Gulf of Kachchh to study coral reef conservation
- Discussion with local people and stake holders.



**Fourth Day**

- Presentation and discussion on policies and implementation related to MCPAs
- Presentation and discussion on role of local communities in mangroves and coral conservation and sustainable use of marine resources
- Marine biodiversity and livelihood of coastal communities
- Feedback
- Plenary discussion
- Concluding session



## SESSION 2 COORDINATION AND INFORMATION SHARING SESSION

To facilitate awareness of existing regional expertise and coral reef management initiatives and promote coordination SACRTF meetings include a structured information sharing session. During this session members reviewed national progress and major initiatives related to MCPAs, coral reefs and the SACRTF work plan. The member countries presented their activities and information on:

- New activities which raise the profile of MCPAs
- New key policy developments
- New funding opportunities
- Major new initiatives
- Milestones for the next year and potential role of the task force to advance them.
- National Coral Reef Task Force (NCRTF) activities and sharing of experience

**Bangladesh:** Dr Md. Jafar Siddique & Dr. M K Farooque Department of Environment provided a detailed report on activities executed in Saint Martin's Island. They highlighted the efforts taken to survey local coral reef resources using underwater videography and photography. New legislations to protect the coral reef ecosystem and establish solid waste management in the area were noted. Bangladesh has initiated the process of national task force formation. The response from communities and stakeholders regarding the protection of this coral reef ecosystem was found to be very positive leading to community driven initiatives to protect the resources.

**India:** The report of activities in MCPAs, new regulations and national level coral reef meetings on the Lakshadweep and Andaman and Nicobar Islands was presented by Dr Venkataraman Secretary, NBA. He highlighted activities being undertaken by different ministries and research institutions and universities related to coral reefs. New initiatives highlighted include the Coastal Regulation Zone Project under the World Bank, and the UNDP GEF Coastal and Marine Biodiversity project in Malvan and Koringa. Mr Naganathan, Gulf of Mannar Biosphere Reserve Trust presented information on an eco-development and public awareness campaign underway to protect this important coral reef environment.

**Pakistan:** Bio-physical surveys have been conducted along the Jewani coast to create an inventory of resources and raise the profile of MCPAs and coral reefs. Raising awareness of the value and importance of coral reefs has been further supported via the environmental education activities and the installation of signs and notice boards in Jewani. Pakistan highlighted a need for further small grant funding in similar areas such as Churna Island and Karachi. Pakistan has nominated a country task force for coral reefs to mitigate present and future impacts leading to the destruction of these valuable habitats, and requested other member countries to follow suit.

**Maldives:** Key policy developments under the GEF funded Program of Work on Protected Areas (POWPA) are advancing environmental governance and institutional mandates, and seek to establish a representative system of MPAs across the Maldives. The Maldives Environmental Management Project (MEMP) funded by the World Bank has recently come on line to build environmental management capacity and address waste management issues, critical for small island developing states. Representatives noted interest in supporting the uptake of products and partnerships resulting from the CORALI through field testing and the development of a skills training programme for Sustainable Livelihood Diversification and Enhancement in Baa Atoll.

### Sri Lanka

Mr Wasantha Rathnayake presented information on national activities to designate new National Parks and Marine Sanctuaries and upgrade the legal status of existing protected areas. An interagency coordination strategy for MCPA management is in preparation to guide this process. The efforts of the Bar Reef Sanctuary conservation programme to control illegal fishery practices in and around marine protected areas, implement pilot scale coral replanting programme, boundary demarcation, and implement a wetland policy were highlighted.

## **Coral Reefs and Livelihoods Initiative – Impacts and key outputs.**

Jerker Tamelander, IUCN provided an update on the Coral Reefs and Livelihoods Initiative (CORALI), a collaborative effort of the South Asia MCPA project and a regional IUCN project focused on the management of climate change impacts on coral reefs and coastal ecosystems.

The role of CORALI in empowering poor coastal communities in South Asia to enhance, diversify and develop their livelihoods was highlighted. CORALI has focused on bringing conservation and livelihoods agendas together and has engaged local field teams and communities to develop and test a regional approach for Sustainable Livelihood Enhancement and Diversification (SLED) in six pilot sites across the region. Additionally, CORALI activities helped to highlight a need for wider regional guidance on socio-economic monitoring in order to review change from the peoples perspective and lead to the development of a set of regional guidelines 'Soc Mon South Asia'. South Asia is now linked into the global SocMon partnership which facilitates inter-regional comparative analysis of the information being collected, and provides South Asian countries with access to global grant funds from the US Government for socioeconomic monitoring activities.

Three products launched under the CORALI partnership were briefly presented, and members were encouraged to consider how decision making can be supported with these tools, and how best practices can be mainstreamed into the many development agency and government led programmes on livelihoods in the region. It was noted that the SLED approach builds on positive elements of existing livelihoods tools and the synthesis of best practice information from across the globe. It was noted by members that the process guidance and concepts behind the SLED approach and regional framework might be used to enhance and improve the effectiveness of existing livelihoods efforts and programmes. Sri Lankan representatives informed members that the SLED process will be integrated into the national Special Area Management Project to give a systematic approach to livelihoods in Sri Lanka and continue the successful work initiated under CORALI.

Jerker also provided an overview of coral reef resilience issues in the face of emerging climate change threats, and highlighted the need to build resilience concepts into ecosystem management and development activities to support adaptation to change. Relevant products resulting from the IUCN Working Group on Climate Change and Coral Reefs were highlighted as reference tools for members and a brief progress update of resilience training conducted in South Asia by IUCN, CORDIO, and local partners provided. Members were also made aware of the recent resolution on resilience taken by international experts at the World Conservation Congress in Barcelona in October.

## **South Asia MCPA project –final update and key outputs**

Significant progress has been made over the course of the 3 year South Asia MCPA project, under each of the four main components: Regional Cooperation; Communication and Data Management; Livelihood Diversification and Enhancement; and Capacity Development. In summary the activities that have been accomplished include:

- 11 regional trainings or workshops;
- 15 grants for site level capacity training;
- 11 MCPA sites and associated staff and communities benefiting from activities;
- Over 500 direct beneficiaries
- Leveraged funds US\$225,000
- 6 publications/tools for use in the South Asia region

Ms. Nicola Barnard from ICRAN presented updates on the activities undertaken since the second SACRTF meeting which included:

- A multi-sector training in underwater investigative, forensic and rapid ecological assessment techniques to improve response to marine resource impact events, and maximise prosecution and mitigation success i.e ICRI Coral Reef Crime Scene Investigation training, hosted by the Government of the Maldives.
- The launch of the South Asia MCPA Toolkit, a comprehensive toolkit to help managers in South Asia access simple and current information to support MCPA management

- The development of an innovative information portal and linked discussion facility to centralise information on marine and coastal protected areas in South Asia.

IUCN ELG, who are leading the development of the South Asia MPA Information Portal have successfully negotiated a collaboration partnership with Protect Planet Ocean, a global MPA focused resource base, who will host the regional information base. The partnership benefits include: high profile global web platform; substantial visitor traffic; information upload facility; additional mapping and analytical functions; longer term maintenance and sustainability for this important resource. SACRTF members were requested to provide tools and resources for sharing on the South Asia MPA Information Portal and to encourage use of this facility.

Nicola concluded by noting that the alliances formed over the course of the project, the SACRTF and the Coral Reefs and Livelihoods Initiative (CORALI) in support of coastal communities in South Asia, have been successful in advancing the marine and coastal management objectives in the region, through exchanges and increased coordination.

### **Recommendations**

- The Chairperson of SACRTF urged all the member countries to establish a National Coral Reef Task Force.
- The role of small grants in achieving large impacts on the ground was noted and members encouraged to explore opportunities for further small grant funding.
- SACRTF members were requested to provide tools and resources for sharing on the South Asia MPA Information Portal and to encourage use of this facility by marine and coastal stakeholders.
- SACRTF members were encouraged to consider how they can support the uptake and mainstreaming of useful products and best practices into national coral reef management activities.

## Project Progress- Ms. Nicola Barnard



### South Asia MCPA Project

Final Update  
December 2008



### Coral Reef Crime Scene Investigation

*Aim: Multi-sector training in underwater investigative, forensic and rapid ecological assessment techniques to improve response to impact events and maximise prosecution and mitigation success*

- Government of Maldives kindly hosted a regional South Asia CSI course, 1-5 December 2008
- Marine Research Centre (MRC) provided local coordination support
- 14 participants trained from 4 countries
- Interest from participants to explore opportunities for a regional rapid response team
- 290-page Coral Reef CSI Toolkit prepared to guide resource impact investigations and rapid responses

### Supporting Enforcement and Compliance at existing MCPA Sites

*Aim: To better support existing MCPAs in the enforcement of protection measures and regulations through the provision of technical enforcement equipment and resources*

Local partners contracted to undertake activities at 4 MCPA sites across the region which include:

- MCPA signage to raise awareness of regulations and boundaries
- Mooring buoy installation and maintenance to reduce physical damage to the resources
- Delineation and monitoring of turtle nesting sites
- Community driven surveillance and monitoring patrols
- Sustainable livelihood enhancement and diversification to increase compliance by upgrading the economic status of resource users

### Managing Marine and Coastal Protected Areas: A Toolkit for South Asia

*Aim: Prepare a comprehensive toolkit to help managers in South Asia access simple and current information to support MCPA management*

- Toolkit prepared in consultation with over 40 regional and international experts
- 500 copies of the Toolkit printed and disseminated across the region
- SA Toolkit used to guide Managers Exchange Programme hosted by the GEER Foundation
- International launch at the World Conservation Congress in Barcelona, October 2008
- Regional promotion at Showcasing event, 17<sup>th</sup> December

### South Asia MCPA Information Portal

*Aim: Develop a comprehensive information portal containing tools, resources and information distilled from data in a useable form for marine and coastal resource managers*

- IUCN Asia leading the development of an innovative information portal and linked discussion facility
- Collaboration partnership negotiated with Protect Planet Ocean – a global MPA focused resource base
- Partnership benefits include: high profile global web platform; substantial visitor traffic; information upload facility; additional mapping and analytical functions; longer term maintenance and sustainability
- Site developed and being populated with tools, resources, and information
- Demonstration of the Portal will be provided at the Showcasing event

### Overview

Significant progress has been made over the course of the 3 year project:

- 11 regional trainings or workshops;
- 15 grants for site level capacity training;
- 11 MCPA sites and associated staff and communities benefiting from activities;
- Over 500 direct beneficiaries
- Leveraged funds US\$225,000
- 6 widely disseminated publications/tools





Thank You

- For further information on any of the listed activities or to obtain copies of reports and resources please contact:

Nicola Barnard  
Senior Programme Officer - ICNIR  
[nbarnard@icnir.org](mailto:nbarnard@icnir.org)

## **Country Presentations**

# Country Presentation Bangladesh



**South Asia Coral Reef Task Force  
(SACRTF)**

Coordination and Information Sharing  
December 2008

**Bangladesh**

Md. Jafar Siddique & Dr. M K Farooque  
Department of Environment.



**ECA: Saint Martin's Island**



***New Activities to Raise profile of MCPAs***

**Survey on Corals:**

1. Underwater video-graphy
2. Still Photography
3. Updating Inventory of Corals
4. Identification of associated flora & fauna

**New Activities contd---**

**Protection**

- Demarcating coral sites
- Setting mooring buoys
- Solid waste management
- Ban on coral collection by community

**New key policy developments**

- ECA rules drafted under BECA 1995
- Zoning
- Ecotourism Development Plan



### ***New Funding Opportunities***

- MOEF: Climate Change Mitigation Fund
- USAID: IPAC (Integrated Protected Area Co-management): 0.55m US\$; under POGA (Programme Objective Grant Agreement)

### ***Major New Initiatives***

#### ***Participatory Action Research for Habitat Conservation***

WCRC: A Partner NGO of CWBM Project

#### **Activities**

- Identification of Threats to Coral Communities
- Community Participation in Coral Conservation
- Guidelines for Project Management
- Monitoring Guidelines
- Guidelines for Tourists

### ***IYOR 2008 (New Initiative contd—)***



### ***IYOR 2008 (New Initiative contd—)***



### ***IYOR 2008 (New Initiative contd—)***



### ***Coastal Cleanup Day 2008***



### Cleanup Day 2008 contd—



### Coastal Cleanup Day 2008



### Uptake and Integration of new products and partnerships

#### Sustainable Livelihoods:

- Ecotourism
- Horticulture/ Crop diversification/ / nursery/plantation/ small trades
- Support on health care/ education/self employment

### National Coral Reef Task force

- Seminar at National level planned for formation of a network and Task Force
- Barriers: Changes in responsibility

# Thanks



# Environmental Education for Conservation of Threatened Coral Resources in Saint Martin's Island

Md. Jafar Siddique & Dr. M K Farooque  
Department of Environment, Bangladesh

## Environmental Education for Conservation of Threatened Coral Resources in Saint Martin's Island

- By: NACOM, a PNGO of CWBMP Project
- Funded By: EU- SACEP

### Activities and Achievements

Activity	Achievement
Mobilization works	Performed
Script writing for the folklore drama	Performed
Organization training workshop for the folklore performer group	Performed
Folklore drama performance	Conducted 8 folk drama in 3 relevant sites.
Formation of Nature Club	Formed a 45 member nature club in St. Martin's Island High School
Preparation and distributn of Awareness mat.	Prepared a 4 color poster on coral resource conservation
Preparation of Billboards	Prepared and posted 3 billboards

### Financial Progress

- Total Budget 5000USD
- Total Expenditure 4992USD



# Thanks



# Country Presentation India



## National Coral Reef Task Force

### Progress Made

- Several Programme Related Committees of Min. Earth Sci.
- National committee on Mangroves & Coral Reef acts as National Coral Reef Task Force
- Expert Group on Research in Mangroves and Coral Reef
- Several Research projects have been funded by Government of India and on going projects.
- Seminar on Status and Protection of Coral Reefs (January 21-23, 2008 Kadamat Island, Lakshadweep (STAPCOR-08))
- Training Workshop on Marine & Coastal Protected Areas (MCPA) managers Exchange Programme November 5-8, 2008 by GEER Foundation, Gujarat.

### No developments and barriers

- Dearth of Taxonomists and Capacity Building in coral reef
- Open access nature of marine resources
- Inadequate capacities for underwater monitoring

**Thank you very much**

## Marine Protected Areas of A&N Islands

- MG Marine National Park Wandoor- 281.5 Sq Km.
- Rani Jhansi Marine National Park ,Have lock-256.142 Sq. Km.
- Loaha Barrack Crocodile sanctuary-100 Sq. Km.

## Mahatma Gandhi Marine National Park,Wandoor



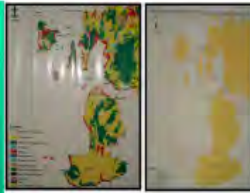
### AREA & EXTENT OF THE PARK

The park is a combination of 15 lush green islands, creeks and open sea space that spreads over-

**TOTAL AREA:** 281.5 Sq.Km

**Land Area:** 61 Sq Km  
(area of 15 Island & 600ha. Of 100m strip above HTL along the coast of South Andaman & Rutland)

**Terrestrial water:** 220.5 Sq Km



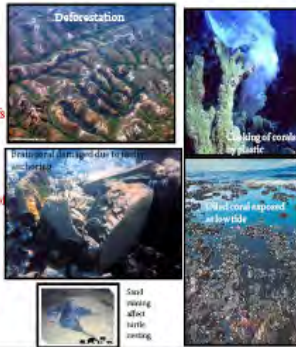
### MARINE DIVERSITY

The park is famous for its rich marine life that include variety of underwater coral reefs, colorful fishes, shells, starfish, sea anemones, soft coral, crinoids, brittle stars and water snakes.



### ANTHROPOGENIC STRESS ON CORAL REEF

1. Deforestation for settlement.
2. Infrastructure development for tourism.
3. Agricultural activity (runoffs of silt, pesticides & nitrogenous fertilizer).
4. Oil spills from fishing and tourist boats & anchoring of coral reef.
5. Short sighted resource exploitation (collection of shells, coral reef curios, shark fins, sea cucumber, lobsters, crab and sand mining)

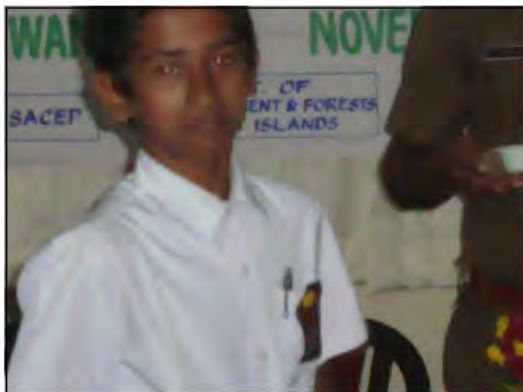


### STRATEGIS FOR REDUCING ANTHROPOGENIC STRESS

1. To provide opportunities to students & communities about marine conservation and ecologically sustainable development and make people understand the value and benefits of conservation of marine biodiversity.







1. Early environmental education help shape children's value, perspective and understanding of the environment and how to interact with it.
2. Help them to develop into adults who understand and care about environment.
3. Provides them with a sense of beauty, calm and refuge in sometimes frightening world.
4. Helps them understand the interrelationship of all life.

Today's children will be responsible for making decisions that will shape the health of the environment. To prepare them for such responsibilities, they need a sound environmental education as a foundation from which to make those decisions.

1. To foster economic development which is ecologically and culturally sustainable through plan Eco-development programmes in villages adjoining the protected area.

**ECO-DEVELOPMENT**

To achieve PA conservation by promoting socio-economic development and providing local people with alternative income sources which do not threaten to deplete the plants and animals within the PA

**ALTERNATIVE LIVELIHOOD**

1. Ecotourism
2. Inorganic farming & organic marketing outlet for selling farm fresh products.
3. Diversification of agriculture with different crop combination and varieties.
4. Soil and moisture conservation practices.
5. Drinking water & irrigation facilities.
6. Cold storage for fishermen.



Proposed phase II of Awareness programme on Coral reef Conservation

S.N	Item	Physical target	Budget needs (\$)
1	Awareness campaign for local fisherman and PR's	3nos.	1800
2	Awareness campaign for school children	3nos.	1800
3	Miscellaneous expenses-travel wages	Lump sum	2000
	TOTAL		5800



# Country Presentation Maldives



**South Asia Coral Reef Task Force (SACRTF)**  
 Coordination and Information Sharing  
 December 2008

**MALDIVES**  
 IBRAHIM NAEEM<sup>1</sup>, HUSSEIN ZAHIR<sup>2</sup>, ABDULLA SHIBAU<sup>1</sup> AND YOUSUF KILWAN<sup>3</sup>

1. MINISTRY OF HOUSING, TOURISM AND ENVIRONMENT  
 2. MARINE RESEARCH CENTRE



**New/existing Activities to raise the profile of MCPAs**

**Atoll Ecosystem Conservation Project (GEF)**

- Collation of information on biodiversity and related issues
- Rapid ecological baseline surveys (Local Consultants)
  - draft under review
- Economic valuation of natural resources of Baa atoll (Maldives in general) IUCN
  - draft report under institutional review
- Economic studies and management plans for Dhigalihaa and Olhugiri (MPAs)
  - 1<sup>st</sup> draft under review

**New key policy developments**

**Program of Work on Protected Areas (POWPA) under GEF**

- Establish a system for representative PAS
- Develop a governance mechanism
- Develop a financing mechanism
- Review of Environment act

**Change in government and environmental governance**  
 Institutional mandates are being reviewed and redefined

**New Funding Opportunities**

- Highlight new funding opportunities that have supported or can support MCPAs or coral reefs or the SACRTF.
  - MEMP project at national level
- Are there any regional opportunities that can be capitalised on through leadership from the SACRTF?
  - .....???



**Major New Initiatives**

- MEMP (Maldives Environmental Management Project – world Bank)
  - Environmental capacity building
  - Establishment of new MPAs
  - Waste management



**Uptake and Integration of new products and partnerships**

How can/will the SACRTF support the uptake of key outputs from the South Asia MCPA project:

- Managing MCPAs: A Toolkit for South Asia (+related training programme)
  - Coordination and information sharing at a regional context
- Sustainable Livelihoods Enhancement and Diversification Programme (SLED)
  - Field testing
  - Skill training program – Baa Atoll
- Coral Reef CSI (Enforcement and Investigation Programme)
  - Coordinate regional coral reef CSI needs in the region where necessary

## National Coral Reef Task Force

- No new developments since September meeting
- Change of government
- Changes to the institutions
- Review of ministerial mandates etc



## Coral Reef CSI Training in Maldives

1-5 December 2008

13 participants

Bangladesh	2
India	4
Maldives	5
Sri Lanka	2



## Thank You





**PROJECT OVERVIEW**

GOAL

- Building capacity and empowering young people to be engaged as agents for change to raise awareness on the importance and value of coral reefs and associated ecosystems

**PROJECT OVERVIEW**

Activities

1. Training 25 empowered and informed young people to run and support awareness activities at three island of Baa Atoll within a period of three months; the age group will be students studying at grades 8 and 9 of secondary schooling.
2. Field trips to protected areas and photography of globally significant species in Baa Atoll with the trained young people.
3. Design and production of awareness materials, toolkits for conduction Awareness Island level workshops by the trained young people.
4. Partner with NGO's and environment clubs to mobilize the trained agents for change in awareness activities within Baa Atoll.

**PROJECT OUTPUTS**

Budget

Disburse	Total Cost (USD)	Percentage of amount (USD)	Contribution in from the AEC project (USD)
Contribution for trained participants (Local Travel)	4000	30%	4000
Design, development of awareness material	10000	75%	3000
Arrangements for building the building facility during school reconstruction in government school campus. In 2007, they provided the materials and awareness program making materials for school events.	10000	75%	2500
<b>Total</b>	<b>14000</b>	<b>80%</b>	<b>9500</b>

**Project Status**

1. Delay in funds transfer AEC project. This was mainly due to official procedures carried.
1. Funds have now been transferred (15th November 2008).
2. Since the project activities are targeted to schools, official communications were made with Ministry of Education and the relevant schools at Atoll level. All arrangements are been made to deliver the project activities to targeted schools.
3. Project activities were put in halt as end of year school holidays started.
4. Project activities will continue at school level after schools re-opens in late January 2009.



# Country Presentation Pakistan



**South Asia Coral Reef Task Force (SACRTF)**

Coordination and Information Sharing  
December 2008

Pakistan  
Dr. Fahimida Emdad  
Deputy Conservator Wildlife, Hyderabad,  
Sindh Wildlife Department.



## New Activities to raise the profile of MCPAs

- Conservation information centres at Gwader, Jewani and Pusni are functional under WWF Pakistan Wetland program and IUCN
- Enhanced Community based Turtle and Coral Conservation programs
- Implemented a short term project on "Environmental Education on corals at Jewani"
- Land and offshore surveys conducted along Jewani coast during October and December 2008.
- Underwater surveys carried out for making documentary film and still photographs of corals and associated marine fauna and flora
- Raised awareness in school children through poster and essays competition on corals and entries were sent to SACEP
- Carried out interpretational activities like printing of brochures, posters, T-shirts, organizing workshops/lectures and fixation of signboards at project site

## New key policy developments

- No new key policy has been introduced with reference to corals since the last SACRTF meeting

## New Funding Opportunities

**Supported**

- A meager amount of US\$ 5500 was approved by UNEP GPA for Coral Education Project at MCPA Jewani (Gwader Bay) through SACEP
- Out of total approved funding an amount of US\$ 4000 has been received in September 2008 whereas US\$ 1500 is left in balance

**Regional opportunities that can be capitalized on through leadership from the SACRTF**

- By providing funding for similar project in other potential areas like Churna Island in Karachi

## Major New Initiatives

**New Initiatives**

- Cetacean conservation Program was completed under Darwin initiative project in collaboration with Government Departments & NGOs
- Mangrove plantation carried out in Baluchistan coastal area
- Environmental Education Project implemented at Jewani with reference to coral & Coral Reef
- Conducted underwater surveys along Jewani coast from Gwader Bay up to Gunz through Garyan & Daran
- Promotional items developed
- Education workshops carried out
- Production of documentary film on corals for the first time in Pakistan.
- Marine turtle conservation activities implemented at Jewani
- Potential coral habitats explored at Gunz and Daran

**Gaps**

- Timely approval of funding required
- Funding may be increased
- Seasonal and climatic problems should be considered
- Required expertise from member countries for training

## Uptake and integration of new products and partnerships

- Provide funding to enhance & continue the existing educational activities at the MCPA site
- Strengthen the institutional needs for existing rules and regulations
- Strengthen regional linkages for information exchange
- Prepare toolkit/identification sheets for education and training
- Sustainable financing mechanism can be developed through public and private partnerships for MCPA activities through ecotourism.

## National Coral Reef Task Force

- Identify and seek support through experts available within the region
- National Task Force can assist the implementing agency by providing the available resources in respective project area
- Need to create strong linkage among all the stakeholders and members of National Coral Reef Task Force



**Environmental Education Activities with reference to Coral and Coral Reefs in Marine and Coastal Protected Area, Site, Jiwani (Gwater Bay)-Pakistan**

PAKISTAN  
DR. FEHMIDA FIRDOUS



**Objectives**

- Education of masses through print and electronic media to raise awareness of the importance and value to coral reefs and associated ecosystems at Jiwani (Gwater Bay) and to explain to the public the long term sustainable benefits of the MCPS.
- Production of a documentary film on corals and coral reefs in the proposed project site.
- Exchange of information on coral reefs and associated ecosystem with other South Asian Marine and Coastal Protected Areas.
- Involvement of local communities and students for participation in various field activities and education programs in collaboration with WWF-Pakistan such as beach cleaning, quiz competition, photo exhibition, rallies, walks, talks and festivals.

**Recent Surveys along the coastal and marine areas of Pakistan**



**Recent joint surveys**



**Exploration for Coral**

Coral and Coral Reefs have recently been explored in Pakistan after extensive underwater surveys along Baluchistan coast due to technical assistance from Pakistan Wetland Program under Ministry of Environment, Government of Pakistan.

**Survey of various localities for observation of corals at Jiwani**

Site No	Date	Location	GPS Position	Depth	Remarks
1	18/10/08	Jiwani	25° 14' 10.000 N 67° 04' 00.000 E	10.0	Shallow
2	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow
3	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow
4	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow
5	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow
6	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow
7	18/10/08	Jiwani	25° 14' 00.000 N 67° 04' 00.000 E	10.0	Shallow



- ### Activities Undertaken
1. Preparation of Education material
    - A. Printing of Poster  
A poster of the size 17"x22", with 4 color printing
    - B. Printing of Brochure  
A3 fold brochure with first hand information on corals & coral reefs of Jiwani
    - C. Printing of T. Shirts  
100% cotton polo T- shirts in three adult sizes have been purchased and printed with a picture of dominant species of coral
  2. Production of documentary Film  
Documentary film is a useful tool for educating the public in local communities. A 15-20 minutes documentary film on coral and coral reefs along Jiwani coast (Gwadar Bay) is under production.
  3. Development of Signboards  
Educational activities have been increased by using signboards in different designs carrying important messages in English and Urdu languages for protection of corals and conservation of marine resources.



### Result

After conducting offshore and underwater surveys it is observed that there are only two potential sites where corals can be found along Jiwani coast. These areas are Gunz and Daran. Coral Reefs were observed in patches on few diving points near Daran.

### Future Plan

The project activities will be enhanced by conducting more extensive surveys and research for exploring more coral area and species in Pakistan.



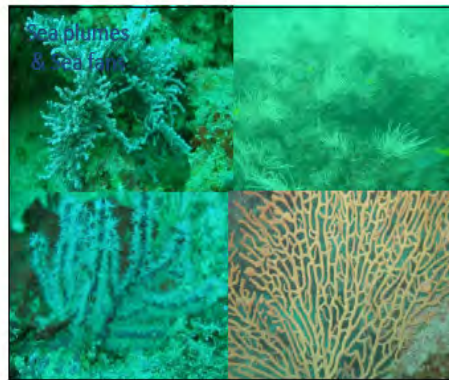
Coral Workshop



Astola



Marine Life in association with Corals



Green Turtle Laying Eggs



Green Turtle Hatchlings





# Country Presentation Sri Lanka



**South Asia Coral Reef Task Force (SACRTF)**

Coordination and Information Sharing  
December 2008

**WASANTHA RATHNAYAKE**  
SRI LANKA



## New Activities to raise the profile of MCPAs

- Opening of New National Parks- eg. Hikkaduwa National Park (tourism as a conservation tool)
- Declaration of new marine Sanctuaries - eg. Vankalai
- Bar-reef sanctuary conservation programme
- Control of illegal fishery practices in and around marine protected areas
- Coral replanting programme at pilot scale eg- Hikkaduwa NP
- Mangrove replanting programme
- Boundary demarcation
- Implementation of wetland policy
- Sand removal programme

**These activities are implemented at the ground level and in policy frameworks**

## New key policy developments

**Requirements:**

- Identification of MCPAs and preparation of inventories
- Declaration of identified MCPAs as Protected Areas  
Eg. Gulf of Mannar area ( higher level agreements for conservation - Sri Lanka with India)
- Upgrading legal status of existing Protected Areas where appropriate.
- Establishment of a special division for marine protected area management in the relevant institutions.
- Preparation of inter agency coordination strategy for MCPA management

## New Funding Opportunities

- Small grants from donor agencies
- Consolidated fund
- INGOs (eg. USAID, GEF, SIDA, CIDA)
- NGOs
- Self funding at small scale (hoteliers, nature lovers, CBOs, volunteers)
- Regional opportunities - Requirement of regional level plan preparation for seeking funds under the leadership from the SACRTF?

## Major New Initiatives

**Activities:**

- Bar-reef Conservation programme with the support of SACEP funds
- Sand removal of programme in Hikkaduwa National Park.
- Coral replanting Programme

**New steps to be taken:** that support MCPAs/network development/coral reefs conservation

- Requirement of Establishment of National level Task Force for Coral Reef and Marine Protected Area Management
- Establishment of marine wildlife conservation division in the Dept. of wildlife Conservation
- Sharing knowledge on coral reef conservation/Marine Protected Area Management
- Control of illegal fishery practices in seas
- MOUs could be drafted to implement the SACRTF activities/objectives
- Establishment of Collaborative Exchange Programme on Marine Protected Area Management
- Collaborative regional level efforts for climate change

## Uptake and Integration of new products and partnerships

SACRTF has to play a big role:

Awareness programmes mainly create the sensitivity on the subject, that is not enough for conservation.

- Managing MCPAs: A Toolkit for South Asia (+related training programme) - **Proper surveys should be done to identify the training requirements**
- Sustainable Livelihoods Enhancement and Diversification Programme - **Proper socio economic surveys should be carried out and micro planning is required.**
- Coral Reef CSI (Enforcement and Investigation Programme)- **Existing laws, regulations and policies are more than enough. Implementation is the problem. MOUs should be signed at National level for implementation of coral reef conservation measures effectively, because that MOU will be a legal instrument- partnerships could be built up through implementation of the MOU.**

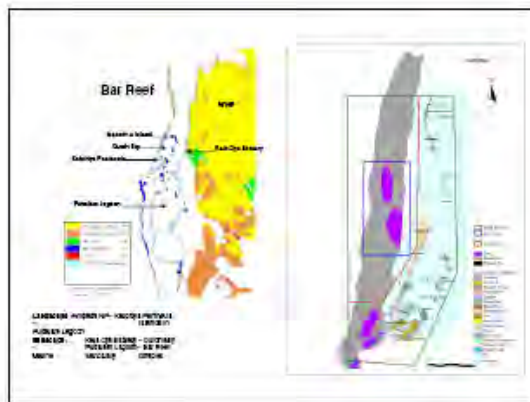
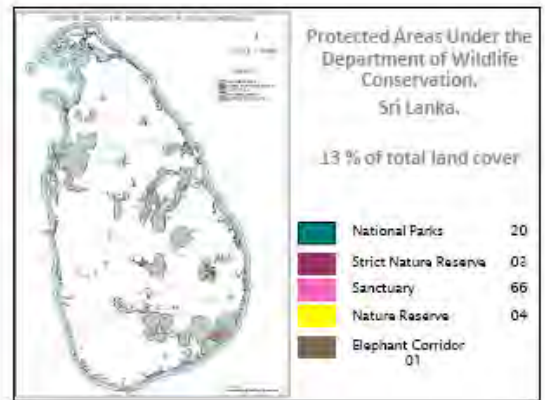
## National Coral Reef Task Force

**Progress:**

- Improved the interest on coral reef conservation at policymakers and ground level
- Declared new protected areas
- Conducted awareness campaigns at national and ground levels
- Security forces are involved in prevention of illegal fishery practices

**Barriers/Issues:**

- Security situation in the country
- Inadequate/Lack of institutional interest on coral reef conservation.
- Lack of a cooperative and coordinated response from the various organizations (both governmental and non-governmental, departments and ministries) in addressing the issues in MCRFA management.
- Inadequate collaboration with local community/fishing community
- Lack of capacity (field personnel) in field level implementation of management activities
- Lack of capacity in enforcement of existing laws due to political pressure.
- Poor infrastructure facilities and equipments
- Lack of awareness of the importance and value of coral reefs at both the ground level and policy levels.
- Lack of funds



- ### Biodiversity in the Area
- More than 400 species of reef and reef associated fish species have been identified in this area.
    - i. 34 species of butterflyfish
    - ii. 8 species of angelfish indicate that these areas are rich habitats for reef fishes.
    - iii. Other common groups of fishes- surgeonfish, rabbitfish, parrotfish, groupers, snappers and emperors
    - iv. 2 species of reef sharks - Black tip and White tip reef
    - v. Dominant Algae – *Halimeda*, *Padina* and *Caulerpa*.
    - vi. Extensive sea grass beds are not present among reef areas. There are isolated patches on the sandy areas between patch reefs. Most sea grass patches are inshore of coral reefs in the Bar Reef

- ### Special Area Management Plan
- The Special Area Management Planning was carried out from 2000 to 2006 by the Coastal Resources management Project with financial assistance from the Asian Development Bank. An Environmental Profile and a Management Plan has been published identifying all issues pertaining to the Special Area of Bar Reef and Kalpitiya.
  - A key issue identified for the lack of management is the lack of policing and trained staff for implementation of the sanctuary regulations and to carry out participatory management of resource use.
  - This project proposal focuses on this aspect of management which is crucial for the successful implementation of recommendations in the Special Area Management Plan and in other reports and publications.

- ### AWARENESS AND CAPACITY BUILDING PROGRAMME FOR THE EFFECTIVE MANAGEMENT OF MARINE RESOURCES IN THE BAR REEF MARINE SANCTUARY, SRI LANKA
- #### Goals & Objectives
- To raise DWC officers's knowledge and awareness of the importance of coral reef conservation
  - To provide basic equipment training for effective resource protection and management
  - To facilitate training in marine resources Conservation including coral reefs
  - To raise Local community's/school children's knowledge and awareness of the importance of coral reef conservation

## Objectives

- Implement marine sanctuary regulations and legal provisions of Fauna & Flora Protection Ordinance
  - Training for staff of the Department of Wildlife Conservation
  - Providing basic equipment training for effective resource protection and management
- Involve the community in participatory management of resource use.
  - Conduct group meetings with fisher community to develop participatory management of the MPA.

## Outputs

- Knowledgeable DWC staff in Coral reef Conservation
- Effective law enforcement
- Knowledgeable DWC staff in basic equipment handling in Coral reef Conservation
- The active and effective involvement of DWC officers in marine ecosystem conservation.
- Effective monitoring in preserve coral reef ecosystem from destructive exploitation.
- Active community participation in marine resources conservation
- Production of a leaflet and two posters on coral reef conservation

## Main Activities of the Project

### 01. Awareness Phase

- Awareness phase of this program has aim to give explanation about back ground, objective and target of this program to DWC staff who will involve in ecosystem conservation awareness campaign. Besides of that, to prepare and discuss about what things that need to prepared before implementation, identify target of the program, working mechanism, and the responsibility of program implementer.
- The result of the discussion is hoped all implementer of the activities able to understand all phases of the activities and team work was chosen to achieve the objective of this program.

## 2. Capacity Building

- Field managers (WILDLIFE OFFICERS) should constantly upgrade their knowledge and skills in order to enable and empower themselves to efficiently discharge their duties. Apart from the formal basic training in biodiversity conservation, which is essential for all staff for laying the foundation, the field staff has also to be provided opportunities for 'on the job' and "in service" training. It is equally important to learn the field experiences in marine resource management from the experts those who are involved in marine resource management.
- Participation in training workshops and specialized course is a standard means for acquiring professional knowledge and skills.
- **Progress Completed**

## 3. Awareness Programme for Local community

An awareness programme will be conducted to educate the local community in and around the Bar Reef Sanctuary those who are involved in fishing and illegal activities.

- In addition, school children awareness programme will be conducted.

Progress: **03 workshops were completed**

**03 workshops have be conducted**

**Art competition will be conducted in 2009**

## 2. Capacity Building Components

Sr. No.	Training Components	Training Elements
1	Coral Reef & Marine Resources Protection	1. Detection & processing of wildlife offences 2. Anti-poaching operations/patrolling 3. Maintenance of boundaries 4. Assessment of damage
2	Field Craft	2.1 Identification of coral reef and species in the ecosystem 2.2 Identification of sea grasses 2.3 Recording of basic data on coral reef & habitats attributes 2.4 Boat handling 2.5 Snorkeling 2.6 Diving 2.7 Use & maintenance of essential equipments
3	Community outreach	3.1 Basic concepts 3.2 Participatory planning methodology



List of components for basic training/awareness programme for the local community

Slc No.	Components	Training Elements
1	Awareness programme for local community, and school children on Importance of Coral reef conservation	Lectures/Workshop Identification of coral reef and species in the ecosystem Importance of coral reef & fishes Videos/films Identification of coral reef and species in the ecosystem Importance of coral reef Prevention and release of by caught turtles Sustainable Fishing-use of fishing nets
2	Art competition and exhibition for school children	Themes Coral reef conservation Turtle conservation Importance of marine ecosystem Sustainable fishing

### Community outreach

- i. Basic concepts
- ii. Participatory planning methodology
- iii. Group meetings with fishing community
- iv. Training in communication and basic skills in community participatory management to be provided by IMM under the ICRAN – SACEP project.

Progress: This will be conducted in January, 2009

#### 4. Production of awareness/educational materials

- Two posters will be produced to aware the general public on importance of coral reef and existing ecosystem.
- A leaflet will be produced to identify the coral species and their importance. These educational materials will be helpful in educating the local people and school children.

Progress: Designing Phase- drawings of school competition will be used



Thank You !



### **SESSION 3 ACTIVITIES OF SACRTF**

Dr A A Boaz and Kristian Teleki initiated discussion on the Sustainable Financing and Institutionalization of the SACRTF, necessary to ensure its continuation beyond the life of the EU funded project. Further key actions/ materials to be taken up by the SACRTF with country governments were also deliberated.

It was noted that the 4<sup>th</sup> IMM has approved and appreciated the SACRTF mandate and projected annual operating budget, and progress updates on the SACRTF work plan are annually submitted to the SACEP Governing Council.

Each country expressed the need for the continuation of the SACRTF, or a similar regional platform to support communication and coordination between bureaucrats, policy makers and ground level staff on marine and coastal issues. The unique nature of the SACRTF as the only available body in the South Asia region for this purpose was noted. The emerging requirement for regional coordination was highlighted as a result of country government commitments to over 14 different treaties (CBD, CITES, Jakarta Mandate) where corals are expressly listed.

With respect to sustainable financing of the SACRTF, country representatives expressed a need to keep annual country contributions simple given existing commitments to SACEP, BOBLME etc. Following deliberations it was suggested that a possible mechanism could be a larger annual contribution from country governments to the annual operating costs of SACEP or the South Asian Seas Programme (SASP). Coral reefs sit well under the mandate of the SASP and could be mainstreamed into this programme. This mechanism would be in line with other international arrangements for example, the East African Coral Reef Task Force is established and financed via the regional Nairobi convention.

Members suggested the preparation of a summary document to accompany any request to country governments, which effectively captures the MCPA, livelihoods and coral reef issues underpinning the SACRTF, and tangible future actions and activities as justification for its continuation.

Under existing national contributions the following actions can be facilitated by SACEP:

- Development of a follow up project for the South Asia region based on the lessons learned from the EU project;
- Nomination of a part time coordinator to help continue efforts under SACRTF while sustainable financing options are explored;
- Continue efforts under the national programme to establish national level CRTF's and also coordinate the meeting of the regional task force representatives;
- Continue interactions through emails for sharing information on coral reef conservation and development efforts and lessons learned with colleagues from the region.

SACRTF members identified the following actions to support the continued coordination and collaboration across the region and build on efforts of the SACRTF to date:

- Members can raise the profile of the SACRTF mandate and work plan at national and regional meetings;
- Disseminate and promote useful products and tools for marine and coastal management widely among professional networks;
- Provide technical support to SACRTF activities rather than financial support;
- Feed national level activities to regional focal point within SACEP, to maintain the network;
- Explore options for cost sharing local accommodation costs associated with SACRTF meetings to facilitate their continuation.

The mandate of the SACRTF guides members to advance discussions on national and regional systems of MCPAs. To facilitate these discussions the Gujarat Ecological Education and Research (GEER) Foundation, was contracted by SACEP to research and prepare a draft strategy for the region to improve communications and coordinated responses to shared coastal resource management challenges. Dr. Pandey, Director GEER Foundation, provided an over view of the draft regional strategy to be adopted for South Asian seas and sought feedback from members which was approved by the SACRTF (See Annex F).

## Recommendations

- SACRTF members unanimously agreed that the SACRTF fulfils a unique and emerging role encouraging cooperation and communication between sectors and countries for improved marine and coastal resource management, and should be continued.
- SACRTF members recommended a robust case be prepared to support a request for additional technical and financial support for the SACRTF operation and activities, and submitted to country governments with the support of SACEP.
- It was noted that over and above funding, there is also a need for commitment from individuals and members to give time and effort to advancing SACRTF activities.
- Members recommended that SACEP allocates a part time SACRTF coordinator to provide updates to each country and organise *ad hoc* meetings, and support countries in their reporting and sharing of coral reef related activities.
- Members were requested to provide technical support to SACEP to ensure the effective drafting of documents and proposals to country governments.
- The SACRTF Member Secretary requested the support of the members to identify funds to support the next meeting.
- Members unanimously agreed that SACEP should request the Government of Bangladesh to host the next meeting of this group.
- SACRTF members and member countries were requested to provide input to the draft Regional Strategy report prepared by Dr Pandey before 26 December 2008 in order that the product can be finalised.

## **SESSION 4 – SACRTF ADMINISTRATION**

SACRTF administrative issues were presented by Dr. Arvind Boaz. The funding requirements to continue the SACRTF was discussed in detail and members expressed their country opinion. The final outcome is presented in the final recommendations.

SACRTF publications were officially launched.

### **Final Resolutions Adopted by the SACRTF Representatives**

#### **At the 3<sup>rd</sup> Meeting of the South Asia Coral Reef Task Force the meeting:**

- Recognised that coral reefs are highly valued for their ecological and economic resources and provide a broad range of goods and services, including coastline protection, tourism and marine natural products. However, serious concern was expressed at the meeting over threats to coral reef ecosystem due to climate change, pollution, destructive fishing practices, invasive species and uncontrolled tourism and recreational activities, as evidenced by various recent national and regional publications, including reports by GCRMN, CORDIO, IUCN and UNEP etc.;
- Unanimously reaffirmed the importance of the South Asia Coral Reef Task Force as a unique body in the region that serves to help coordinate the region's approach to managing and conserving its coral reefs and associated ecosystems;
- Requests the SACEP Secretariat to allocate a staff member to service the SACRTF;
- Requests the SACEP Secretariat to review a budget for the continuation of the South Asia Coral Reef Task Force, and propose a revised phased budget for the next five years for the SACRTF support;
- Requests SACEP Secretariat and Member Governments to mainstream the SACRTF into the work plan of the South Asian Seas Programme;
- Recommends SACRTF members to impress upon their governments to continue to promote and champion the SACRTF within their own ministries, agencies and institutions;
- Requests that the SACEP Governing Council and the IMM to consider sustained and long term financial support to SACRTF through the existing country SACEP contribution mechanism in order that the SACRTF may continue its important and unique role in the region; and
- Requests SACEP, with technical support from IUCN and ICRAN, to develop a regional coral reef project that responds to national interests and priorities, for approval of the Governing Council and explore possibilities of financial support as may be appropriate.



## Annexure

### Annex A Environmental Education Call For Action

1. Environmental Education for Conservation of Threatened Coral Resources in the St. Martin's Islands	58
2. Awareness Generation Programme for local stakeholders in Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands	77
3. Building Youth Constituency to Conserve Coral Reef Ecosystem In Maldives' Baa Atoll	82
4. Environmental Education Activities with reference to Coral and Coral Reefs in Marine and Coastal Protected Area, Site, Jewani (Gwater Bay)-Pakistan	83
5. Awareness and Capacity Building Programme for The Effective Management of Marine Resources in the Bar Reef Marine Sanctuary, Sri Lanka	88
<b>ANNEX B</b> Activity and Events International Year of The Reef (IYOR 2008)	93
<b>ANNEX C</b> Projected Annual Operating Costs of the SACRTF	95
<b>ANNEX D</b> Meeting Agenda	96
<b>ANNEX E</b> List of Participants	99
<b>ANNEX F</b> Regional Strategy Presentation	101

To raise awareness of the importance and value of Coral reefs and associated ecosystems, and to explain to the public the long term, sustainable benefits of the MCPA. **The country reports presented during 3<sup>rd</sup> SACRTF meeting held at Chennai India** (*excerpts from their speech*)

With the support of the South Asia Coral Reef Task Force (SACRTF), five small action grants are facilitating for environmental education and outreach activities at the participating MCPA sites.

1. St.Martins Island Bangladesh
2. Mahatma Ghandi National Park, Andaman island India
3. Baa Atoll, Maldives
4. Jiwani (Gwater), Pakistan
5. Bar Reef, Sri Lanka)

### Bangladesh

#### 1. Environmental Education for Conservation of Threatened Coral Resources in St. Martin's Islands

##### Activities

The activities covered include folk drama, publication of posters and display of bill boards. The environment education awareness campaign was very successful by conducting 8 folk Plays which was attended by personnel from law enforcing agencies, School Teachers, School children and General Public. Further 45 members of nature club from schools also participated. Four-colored posters were distributed to the Academic Institutions and households. Bill boards were placed in the prominent places. All the above were prepared in local language in a manner easily understandable by public. Future plan of activities were presented and for which additional funding support is required. The Bangladesh delegates thanked ICRAN, SACEP and EU for providing funding.

- I. **Preparation of script of the folklore drama productions** - A script on the importance and the beneficial aspect of the corals and associated ecosystem will be prepared involving experts/groups.
- II. **Organize training for the folklore performers**
- III. **Folklore drama performance on the conservation of coral resources (10 performances)**  
Awareness through folklore drama is one the most useful and accepted communication and awareness tools for reaching the target stakeholder group. Under this contract, 10 folklore performances will be held on the island and in the Cox's Bazar where the corals are exploited. One local group will be trained to prepare and implement similar performances so they can continue to raise awareness in future.
- IV. **Development of Nature Club** - One nature club will be developed on the island for continuing the awareness activities. An action plan will be developed for the Nature Club so they can effectively contribute to, and complement biodiversity conservation activities ongoing on the island.
- V. **Develop awareness materials** - One booklet on the coral resources and the importance/role of it in the ecosystem will be produced for creating awareness among tourists and the local population. Three Bill boards will be developed and erected at key locations across the MCPA and within the community to display conservation messages and MCPA regulations.



Environmental Education for Conservation of Threatened  
Coral Resources in the St. Martin's Island Project

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## FINAL REPORT



*Submitted to:*  
**South Asia Co-operative Environment Programme (SACEP)**  
and  
**Department of Environment,  
Government of Bangladesh**

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## Executive Summary

A total of 66 scleractinian coral species and a diverse range of coral associated resources occur in St. Martin's island. However, due to anthropogenic and natural calamities, the corals of St. Martin's island are variously threatened. Lack of awareness has been identified as one of the major causes for resource degradation in the island. The purpose of the project is to contribute towards the conservation of threatened coral resources of St. Martin's island through raising local level awareness. A range of awareness raising activities, including folkdrama performances, development of nature club, posting of billboards, production of awareness materials, were implemented under the scope of the project.

As planned, a folkdrama script on coral conservation issue was developed employing a folkdrama professional. The script highlighted the conservation issues, like the importance of coral in supporting the associated resources, function of corals in maintaining ecological integrity, aesthetic value of coral and, threats to coral resources and the role of local people in conserving coral and other associated resources of St. Martin's Island.

A 3-day long training workshop was organized to enhance the skill of the folkdrama performer group formed earlier by NACOM in staging the folkdrama based on the developed script. A total of 10 folkdrama performances were staged at different strategic places in St. Martin's Island and Teknaf area. The folkdrama performances were well accepted by the local community and a huge turn out was observed during each performance. In addition to the local people, local law enforcing agencies, officials and public representatives also attended the performances.

A school based nature club with participation of students of a local high school was formed with a view to utilize the student force in safeguarding the local biodiversity. The school authority allocated a room for the nature club and assigned a science teacher to look after the club. The nature club was provided with some logistics. An Action Plan to be implemented by the nature club members was also developed so that they could contribute towards the conservation of local resources. A 4-coloured poster with message on conservation of corals was printed and distributed among local households and institutions. Similarly, three billboards with messages on coral conservation were prepared and posted at strategic places of the St. Martin's Island.

The report also puts forward some recommendations for the conservation of corals and its associated resources of St. Martin's Island. The major recommendations include, conducting more awareness campaign employing various awareness tools, strengthening the nature club and engaging the school students and local youths in environment conservation, regular meetings with local law enforcing agencies and local public representatives to encourage them in nature conservation, introducing a participatory system for regular monitoring local critical biodiversity, and conducting scientific studies to investigate the distribution, growth, mortality and ecology of corals, and identify the environmental and anthropogenic threats to the local coral resources.

## **1. INTRODUCTION**

### **1.1 Background and Issues**

In Bangladesh, corals are found only on the St. Martin's Island. St. Martin is a small island in the north-eastern part of the Bay of Bengal, about 9 km south of Cox's Bazar Teknaf peninsular tip and forms the southern most tip of Bangladesh. The island is located on the eastern flank of an anticline and probably a part of Arakan-Naga folded system and therefore the island is regarded as a sedimentary continental island (Akhtar, 1992; Ahmed 1995) whose coastal environment supports diverse coral communities. The shelf of St. Martin's island is covered by a layer of sedimentary boulders that vary greatly in size. These boulders provide a very suitable substrate for the settlement of coral larvae. The island is very scenic and a destination for a huge number of tourists from home and abroad.

In addition to corals, the coastal environment of the island harbors a diverse range of animals, many of which are unique to the country. However, due to anthropogenic and other activities the island environment has been highly degraded and is posing a threat to its biodiversity. Several thousand people now inhabit the island and a range of commercial activities, including agriculture on the land, fishing around the island, extensive unplanned tourism and other activities have already caused high degree of environmental degradation to the island. This is particularly evident in case of corals, which are collected as small commercial activity by some local people. The threats to corals also include environmental pollution and also natural calamities. As a result many of the coral species have by now become threatened and many more is becoming increasingly vulnerable. If this trend is not reversed or stopped the valuable coral resources and its associated biodiversity may disappear in the near future. In the circumstances, protection of corals and its associated resources of St. Martin's Island has been a concern to the environmental activists as well as to the government of the Bangladesh.

A number of initiatives were taken by the government and non-government agencies in the past targeting the protection of the island's environment. However, little has improved with regard to the island's biodiversity protection, corals in particular. Presently, Department of Environment of the Government of Bangladesh has been implementing a biodiversity management project with participation of local community in St. Martin's island, conservation of coral is an important component of the project. Although, a number of interventions have been designed for implementation in protecting island's biodiversity, including the corals, raising of awareness among local people has been a low priority. It was suggested that strong awareness building among locals is necessary for safeguarding the local biodiversity. In response to an invitation for proposal by SACEP for the conservation of threatened coral resources of the St. Martin's island, NACOM put forward a proposal on the conservation of corals of St. Martin's Island with most emphasis on the enhancement of local awareness level.

## 1.2 Status and Distribution of Corals in St. Martins Island

Corals are found around most of the St. Martin's Island, except the northern part (Fig. 1). The rocky subtidal of the seaward margin of intertidal to about 200-6000m offshore support coral communities. Corals are also found in the rock pools of lower intertidal. A total of 66 scleretic coral species, belonging to 22 genera and 10 families, has been recorded from St. Martin's island (DoZ, 1997; Tomasick, 1997; Mollah, 2000). All families represent reef building corals. Annex 1 provides scientific names and relative abundance of the recorded species. The genera *Porites*, *Favites*, *Goniopora*, *Cyphastrea* and *Goniastrea* are most abundant in terms of coral coverage. *Porities* by far is the most important genera. In relative terms, almost all coral genera, perhaps with the exception of *Acropora*, can be viewed as rare (Tomasick, 1997). The abundance of corals and their cover is low. The coral cover varies from 2-10% of the rocky substrate (DoZ, 1997). Based on the quadrant and transect survey, the density at some selected areas is about 1.3 colony/m (Tomasick, 1997). Corals are also found at some places off from southern most tip of the island. It takes about an hour to reach by a motorized fishing boat and about 10 km from Seradia (DoZ, 1997).

The soft coral communities of St. Martin's island is a unique feature of subtidal zone. The soft coral colonies belong to 6 families, namely, Plexauridae, Acanthogoridae, Subergorgoniidae, Malithadiidae, Anthotheliidae and Elliseliidae. The important soft coral genera include *Sinularia*, *Lobophyton*, *Authela*, *Gorgonia*, etc (Tomasick, 1997, DoZ, 1997).

## 1.3 Coral Associated Fauna of St. Martin's Island

A diverse range of coral associated faunal groups inhabit the inshore and offshore waters of the St. Martin's island. These animals represent an unique community structure and attracts the visitors.

The major macro-invertebrate communities of St. Martin's island comprise of about 61 species of molluscs, 9 species echinoderms, 4 species zoanthids and 4 species of Bryozoans (Tomasick, 1997, DoZ, 1997). Among the molluscan fauna, gastropods are most abundant. The important molluscan groups are periwinkles, nerites, topshells, cowries, murex and cone shells. *Trochus niloticus* and *Tarbo marmoratus*, 2 globally important and depleted species are also present in the island. Four species of colorful nudibranchs are also present in the rocky subtidal areas of the island.

The echinoderms of St. Martin's Island are represented by 4 species of sea urchins (Echinodermata; Echinozoa), one species of sea star (Protoreasteridae), one species of sea cucumber (*Holothuria atra*) and a number of brittle stars (Ophiurozoa). Sea cucumbers are sought for local consumption. Bryozoans are abundant group encrusting calcareous invertebrates. The other anthozoans observed in the subtidal areas include *Nemanthus* sp., *Telemactis* spp. and *Discosoma* spp., etc.

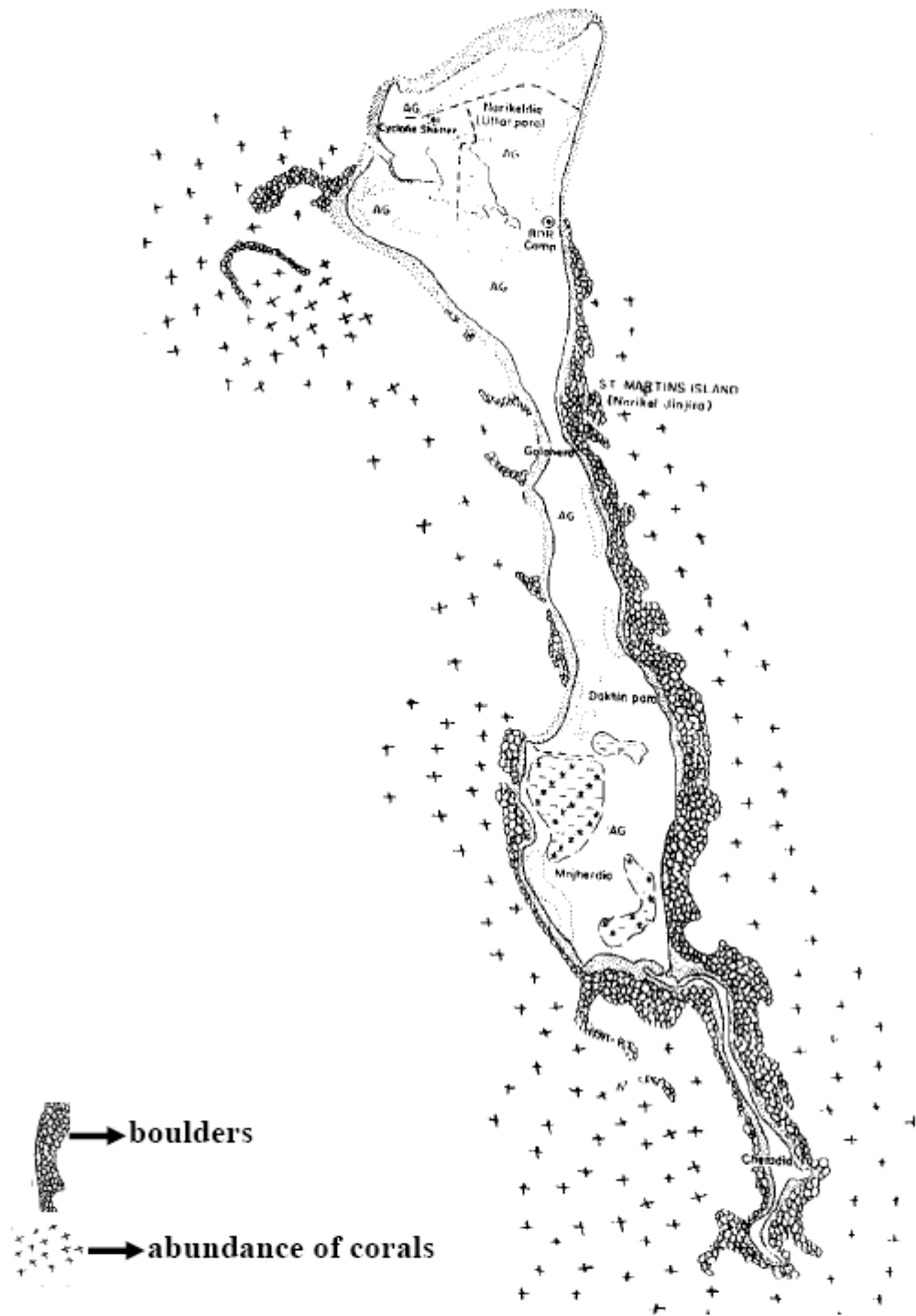


Fig. 1 Map of St. Martin's Island showing distribution of coral beds



#### **1.4 Threats to the Corals and its Associated Resources of St. Martin's Island**

A number of threats, belonging to both natural and anthropogenic, are known that contribute to the degradation to coral and its associated resources. The major threats are as follows:

##### *Anthropogenic threats*

i. Extraction of corals: The coral collection from St. Martin's island for commercial purpose virtually started in 60's and by now it has become professional activity for few families (DoZ, 1997), although until recently the activity has declined. Coral collection is done by using about 18 small manual boats. It was estimated that the weight of harvest ranges from 40-100 kg/day/day or about 40-440kg/day/person. It was also estimated that about 30,000 coral colonies are removed annually which is about 24% of the existing coral population in the extractable areas. Earlier, only *Acropora* species were sought after. These species have become relatively rare. Presently, 4 types of corals are mainly collected. These are *Acropora spp.*, *Favites spp.* and *Goniastrea spp.* (Mollah, 2000).

ii. Destructive fishing practices, mainly the use of rock weighted gill nets over the inshore boulder reefs.

iii. Anchoring of boats and speed boats in the coral bed areas

iv. Increased water turbidity and sedimentation from agricultural practices, deforestation and urbanization

iv. Waste disposal, particularly fish offal from large number of fish dry farms

v. Tourists activities (eg. collection of sample specimens and other destructive activities)

##### *Natural threats*

vii. Cyclonic storms and tidal surge probably cause serious damage to coral communities by shifting and overturning substrate boulders

viii. Silts coming with Naaf discharge causing turbidity problems on the east coast of the island.

ix. Increased discharge of freshwater flood water to Naaf River during wet season causes salinity to fall to a suboptimal level for corals.

## **1.5 Management Efforts for St. Martin's Island Coral Resources**

A number of projects were initiated in the past aiming at the conservation of the island's biodiversity. The major projects are described below:

**NCSIP (National Conservation Strategy Implementation Project):** Concern regarding the St. Martin's island coral resources came as one of the important components of NCSIP. Baseline studies of the resources were done under the project and a detailed management plan was developed with provision for the establishment of a Marine Protected Area. The Plan also emphasized mostly on coral conservation. However, there has been little progress in implementing the Management Plan.

**St. Martin's Island Conservation Project:** This project aimed at safeguarding the island's biodiversity and development of eco-tourism. Coral conservation was one of the major components of the project. However, there had been no improvement, rather the activities of the project contributed to the adverse impact on the island's biodiversity.

**CWBMP (Coastal and Wetland Biodiversity Management Project):** CWBMP project is designed for the protection of biodiversity of St. Martin's island with special emphasis on coral conservation. Under the project, the coral resources have been reassessed. With regard to coral conservation, the project is planning to establish a coral conservation area, imposing restrictions on coral extraction and trade.

## **1.6 Objectives and Planned Activities of the Project**

The objective of the project is to raise awareness on the importance and value of coral reefs and associated ecosystems at St. Martin's Island, and to explain to the public about the long-term sustainable benefits of Management and Conservation of Marine and Coastal Protected Areas (MCPA).

### ***Planned Activities***

- i. Preparation of a folkdrama script on coral conservation (1 script)
- ii. Organizing a training workshop for the folkdrama performer group (1 training workshop)
- iii. Performances of folkdrama on coral conservation issue (10 performances)
- iv. Development of a school-based nature club (1 club)
- v. Development of awareness materials (1 poster)

## 2. DESCRIPTION OF THE PROJECT SITE

St. Martin's Island, locally known as Narikel Jinjira, is a small island in the north-eastern part of the Bay of Bengal, about 9 km south of Cox's Bazar-Teknaf Peninsular tip and thus forms the southern most tip of Bangladesh (Fig. 1). It is about 8 km west of the north-west coast of Myanmar and exactly at the mouth of River Naaf. The island lies roughly in between 20°34' N and 20°38' N and between 92°18' 2E and 92°20'8 E.

St. Martin is a dumbbell shaped island, stretching along north-south in length and west to east in wide (Fig. 1). The island is about 7.8 km long and few hundred metres to little above 1 km in width, the surface area of the island is about 7.8 is about 8 km<sup>2</sup> at low tide and about 5 km<sup>2</sup> at high tide. The island is about 2.5 m above the sea level. The island is geo-morphologically divisible into several parts, (i) Uttarpara (mostly inhabited and most economic activities are concentrated here) (ii) Golachipa (shows the signs of severe erosion) (iii) Madhyapara (iv) Daskinpara (has some mangrove vegetation) (v) Siradia (most part undergo water during high tide).

Excepting the north-east coast and northwest coast, almost the entire coastline of St. Martin's island is fringed by a unique rocky intertidal. The width of the intertidal area varies from 100 m to 500 m. The rocky intertidal is formed by boulders of varying sizes. They are probably the continuation of the bed rocks of the island. Some boulders show the clear signs of translocations. The dead coral colonies in the upper and lower intertidal are found as boulders. Beyond the intertidal, the rock bed extends into the subtidal area up to a few meters to few hundred meters. These rocks support the coral colonies and beyond this is again the sandy area.

Some offshore rocky reefs (rock shoal) along the west coast and south coast become exposed during low tides. These rock shoals have cracked sedimentary rocks on the base and spherical weathered rocks on the top.

The main shoreline habitats are sandy beaches and dunes and scattered rocks and translocated coral boulders. Some boulders are also found on the interior into the island. The shallow water marine habitats include rocky and sandy intertidal, intertidal rock pools, offshore lagoons, rocky and sandy subtidal and offshore soft bottom habitats.

The supratidal area mostly contains the sand dunes of loose sands and compact sands at the land water interface and scattered translocated rock boulders. The island shows the signs of erosion at many places. Low height coastal embankment has been constructed by piling up of loose boulders along the considerable length of the island.

The major intertidal and subtidal biotic communities of the east coast include (i) intertidal gastropod-algal community (ii) coral algal community (iii) mixed seagrass-algal community (iv) soft coral community (v) soft bottom. In the west cost the community include (i) gastropod-algal community (ii) coral algal community (iii) algal community (iv) soft bottom community (Tomasick, 1997).

### 3. ACCOMPLISHMENT

#### 3.1 Preparation of a folkdrama script

A folkdrama script on coral conservation issues was developed employing a folkdrama professional, Mr. Jahangir Alam. The script was further edited to suit the local dialect. The script highlighted the conservation issues, like the importance of corals in supporting the associated resources, its function in maintaining ecological integrity, aesthetic values of corals, potential for coral viewing rather than coral extraction, threats to the local coral community and the possible role of the local people in conserving the corals of the Saint Martin's Island. It may be mentioned the script was shared with the National Project Personnel of CWBP (Coastal and Wetland Biodiversity Management Project) of the Department of Environment, to get their feedback on the script in order to revise the script accordingly. A copy of the Script is attached herewith (Annex 6).

#### 3.2 Organizing a training workshop for the folkdrama performer group

A 3-day training workshop was organized on 24-26 October, 2008 to enhance the skill of the folkdrama performer group in staging the folkdrama based on the script. Mr. Jahangir Alam, an eminent folkdrama professional, conducted the training workshop. It may be mentioned that NACOM earlier formed the local folkdrama/folklore group involving the local interested youths and students under the CWBMP of the DoE. By the time, they have



acquired considerable skills in staging such folkdrama in the locality. All the the members of the performer group (14 performers) participated in the workshop. The training workshop was very effective to further enhance their skills in staging the folkdrama, particularly on coral conservation.

Training workshop for the folkdrama performer group

#### 3.3 Performances of folkdrama

So far, eight folkdrama performances were staged at different strategic places of Saint Martin's Island, Teknaf and Cox's Bazar and two more performances are scheduled to be held on 16 and 17 December, 2008. Detail information on individual performances are given in Table 1. All the performances were attended by a appreciable number of audiences. Prior to staging the performances, permission from the local administration and



Staging of folkdrama at St. Martin's Island

Table 1 Information on the folkdrama performances in the project area

Sl. No.	Date	Venue of the performances	Approx. No. of audience	Community acceptance	Remarks
01	29.10.08	Saint Martin's Island Union Parishad	1,000	Highly accepted	Among others, local public representatives were present, local officials
02	30.10.08	Hotel Ocean View, Saint Martin's Island	600	Highly accepted	Among others, law enforcing agencies and restaurant operators were present
03	30.10.08	Konarpara Primary School, Saint Martin's Island	800	Highly accepted	Among others, fishermen, NGO representatives were present
04	31.10.08	Southpara Primary School, Saint Martin's Island	600	Highly accepted	Among others, fishermen, NGO representatives were present
05	01.11.08	Kachubonia Cyclone Centre, Teknaf	800	Highly accepted	Local people, VCG and ECA Committee members were present
06	01.11.08	Laboni Beach, Cox's Bazar	1,200	Highly accepted	Local people, VCG and ECA Committee members were present
07	12.11.08	Hazi Bashir Ahmed High School, Shahporirdwip, Teknaf	1,000	Highly accepted	Local people, VCG and ECA Committee members were present
08	12.11.08	West Moheshkhaliapara, Teknaf	700	Highly accepted	Local people, VCG members were present
09	14.12.06	Inani, Cox's Bazar	1,000	Highly accepted	Local people, VCG members were present
10	14.12.08	Khurushkul, Cox's Bazar	800	Highly accepted	Local people, VCG members were present



community consent were taken. The performances created a great enthusiasm among the local community. In addition to the local community, the performances were also attended by local law enforcing agencies (Army, BDR-Bangladesh Rifles, Police) stationed at St. Martin's who also play a major role in conserving the local resources. The performances were also attended by almost all local public representatives (Union Parishad), local elites and school teachers. We were overwhelmed by the responses and the acceptability of the events by the local community. The local people and administration have requested us to organize similar programs covering other issues of the island in future.

### **3.4 Formation of school based nature club**

A nature club was formed with the participation of students of the St. Martin High School. Initially, a meeting was arranged with the school authority about the formation of a nature club with the participation of the students. The authority happily agreed and allocated a room in the school for the nature club and assigned a science teacher to look after the nature club and its activities. A 20 membered committee was formed. A file cabinet, books on environment and some other logistics were provided to the nature club. A list of the committee is provided in Annex 2. NACOM will continue to support this committee.



Handing over of key of file cabinet donated to school authority

### **3.5 Development of a workplan for the nature club**

An annual work plan detailing activities to be carried out by the nature club and its implementation strategies was developed through a process of discussion involving the students and the assigned teacher. The major activities to be implemented by the nature club include monitoring of shore birds (by transect counts), organizing two rallies in connection with the observance of the World Environment and World Wetland Day, monitoring of coral extraction and coral sale and reporting any illegal resource extraction activities to the law enforcing agencies, etc. A outline work plan prepared for the nature club is given in Annex 3.

### **3.6 Publication of awareness materials -poster**

A 4-colored poster with message for conservation of corals was printed and distributed among the local households of the project area. The messages highlight the importance and conservation significance of corals and roles and responsibilities of different stakeholders in protecting the coral resources of the island. In addition to distribution to household level, the poster was also posted at important places, academic institutions. A sample copy of the poster is provided in Annex 5.



### 3.7 Preparation and posting of billboards

Three billboards with messages on coral conservation were prepared and posted at strategic places on the St. Martin's Island. One of the billboards measures 7 ft x 5 ft, while other two measure 5 ft x 3.5 ft each. The larger billboard was digitally printed in 4 colors on panaflex while the other two were made on steel frames. The larger billboard has been posted at the ferry landing site of the St. Martin's Island. (Annex 4.).



A billboard on coral conservation posted near ferryghat of St. Martin's Island

## 4. PROBLEMS AND CONSTRAINTS

- i. The project site is separated from the main land by sea. Traveling to the project site is very restricted during wet season due to rough sea conditions. Virtually, the island remains cut off during the period from rest of the country during the period. Therefore, we could move to the site only when the sea became calm and transportation was available, i.e. in mid September. Since the project was time bound, we had to do everything within a very short period of time. It would have been better if we could get more time for the implementation of the project.
- ii. Limitation of fund constrained the implementation of the planned activities to some extent, although the targets were achieved. In fact, we had to economize each activity, particularly in producing awareness materials, supporting and strengthening of nature club. In some instances, NACOM had to provide partial financial support towards implementation of some activities.

## 5. RECOMMENDATIONS

The following recommendations are made with a view to ensure the long-term sustainability of the coral resources of the St. Martin's Island.

- i. More awareness campaigns targeting local people, local government officials, law enforcing agencies and visitors, should be conducted covering a wide range of issues.
- ii. The nature club formed under this project should be further strengthened providing training and logistics and they need to engaged in monitoring and conservation of island's biodiversity.

- iii. Regular meeting should be conducted with law enforcing agencies and local public representatives in order to encourage them to enforce the laws related to biodiversity conservation.
- iv. Regular monitoring on coral extraction, curio sale of corals, boat anchoring within coral bed areas, extraction of other coral associated fauna should be made.
- v. A marine park could be established as suggested in the Management Plan of the NCSIP 1.
- vi. A detailed scientific study should be carried out to investigate the distribution, growth and mortality of corals and identify the environmental and anthropogenic threats to them. The study should also collect water quality data.

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Annex 1. Scleractinian reef-building corals (order Scleractinia) of Narikel Jinjira (St. Martin's Island)

FAMILY	GENUS AND SPECIES	ABUNDANCE
ASTROCOENIIDAE	<i>Stylocoeniella armata</i>	C
ACROPORIDAE	<i>Montipora angulata</i> *	R
	<i>Montipora hispida</i> *	R
	<i>Montipora informis</i>	C
	<i>Montipora spongodes</i>	A
	<i>Montipora turtlensis</i> *	A
	<i>Montipora verucosa</i>	R
	<i>Acropora glauca</i>	A
	<i>Acropora multiacuta</i> *	R
	<i>Acropora vauhani</i> *	R
	<i>Acropora austera</i>	R
	<i>Acropora aculeus</i>	A
	<i>Acropora rudis</i>	C
	<i>Acropora latistella</i>	R
	PORITIDAE	<i>Porites lobata</i>
<i>Porites solida</i>		A
<i>Porites lutea</i>		A
<i>Porites murrayensis</i> *		C
<i>Goniopora columna</i>		A
<i>Goniopora djiboutiensis</i>		A
<i>Goniopora stokesi</i>		A
<i>Goniopora stutchburyi</i>		A
<i>Goniopora tenuidens</i>		R
SIDERASTREIDAE	<i>Psammocora hatmeana</i> *	R
	<i>Psammocora profundacella</i>	A
	<i>Coscinaraea columna</i>	A
	<i>Pseudosiderastrea tayami</i>	A
AGARICIIDAE	<i>Pavona decussata</i>	R
OCULINIDAE	<i>Galaxea astreata</i>	C
	<i>Galaxea fascicularis</i>	C
MUSSIDAE	<i>Acanthastrea echinata</i> *	R
	<i>Acanthastrea hillae</i> *	R
FAVIIDAE	<i>Favites abdita</i>	A
	<i>Favites halicora</i>	A
	<i>Favites flexuosa</i>	C
	<i>Favites sp. 1</i>	R
	<i>Favites sp. 2</i>	R
	<i>Gonioastrea aspera</i>	A
	<i>Gonioastrea edwardsi</i>	A

	<i>Goniostrea palauensis</i> *	R
	<i>Goniostrea pendulus</i> *	R
	<i>Goniostrea retiformes</i>	C
	<i>Platygyra daedalea</i>	A
	<i>Platygyra pini</i>	C
	<i>Platygyra stensis</i>	R
	<i>Leptastrea purpurea</i>	C
	<i>Leptastrea pruinosa</i> *	R
	<i>Leptastrea transversa</i>	A
	<i>Cyphastrea serallia</i>	A
	<i>Cyphastrea chalcidicum</i>	A
	<i>Cyphastrea sp.</i>	R
	<i>Monastrea curta</i>	R
	<i>Monastrea magnistellata</i>	R
	<i>Favia fava</i>	R
	<i>Favia pallida</i>	R
	<i>Favia speciosa</i>	R
MERULINIDAE	<i>Hydnophora exesa</i>	A
	<i>Hydnophora micoconos</i>	A
	<i>Hydnophora pilosa</i>	C
DENDROPHYLLIDAE	<i>Turbinira frondens</i>	R
	<i>Turbinira peltata</i>	R
	<i>Turbinira reniformis</i>	R
	<i>Turbinira stellulata</i>	R
	<i>Dendrophyllia sp.</i>	C

Source: Tomasick, 1997.

\*Relative abundance categories based on visual observations during snorkelling: A- abundance, C- common, and R- rare, indicates need for taxonomic verification.

**Annex 2. Information on the Nature Club formed with students of St. Martin's Islamia High School**

Sl. No.	Name	Class	Designation	Remarks
01	Md. Shahjalal Sarkar	Head Master	Chief Advisor	
02	Shah Moyazzem Hossain	Science Member Teacher	Advisor	
03	Md. Ayat Ullah	Nine	President	
04	Md. Ayas	Seven	Vice President	
05	Md. Joynal Abedin	Eight	General Secretary	
06	Asma Akter	Seven	Treasurer	
07	Md. Abdullah	Seven	Organizing Secretary	
08	Md. Ayaz	Nine	Literature Secretary	
09	Md. Nurul Absar	Nine	Cultural Secretary	
10	Abdullah Al Noma	Nine	Game Secretary	
11	Tamiza Akter	Eight	Publicity Secretary	
12	Ayesha Siddika	Seven	Social Welfare Secretary	
13	Md. Ibrahim	Eight	Executive Member	
14	Abdul Aziz	Nine	Executive Member	
15	Noor Nahar	Nine	Executive Member	
16	Minara Akter	Seven	Executive Member	
17	Setara Akter	Seven	Executive Member	
18	Humaiya Akter	Seven	Executive Member	
19	Saddam Hossain	Seven	Executive Member	
20	Rozina Akter	Six	General Member	
21	Kohinoor Akter	Six	General Member	
22	Robiza Akter	Six	General Member	
23	Tafhima Jahan Merina	Seven	General Member	
24	Rehena Akter	Six	General Member	
25	Yeasmin Akter	Seven	General Member	
26	Mahfuza Akter	Six	General Member	
27	Hamiza Akter	Seven	General Member	
28	Mozoma Akter	Eight	General Member	
29	Taslina Akter	Seven	General Member	
30	Md. Harun	Six	General Member	
31	Md. Ayaz Uddin	Nine	General Member	
32	Md. Absar	Seven	General Member	
33	Md. Abdullah	Nine	General Member	
34	Md. Ayaz	Seven	General Member	
35	Md. Azizul Haque	Eight	General Member	
36	Md. Alamgir	Six	General Member	
37	Md. Zahid	Six	General Member	
38	Md. Fahad	Seven	General Member	
39	Md. Rabiul Alam	Six	General Member	
40	Md. Zubayer	Nine	General Member	
41	Md. Rafique	Nine	General Member	
42	Atiqur Rahman	Eight	General Member	
43	Md. Joynal	Eight	General Member	
44	Samsunnahar	Seven	General Member	
45	Rozina Akter	Seven	General Member	
46	Md. Harun	Six	General Member	
47	Md. Ayaz Uddin	Nine	General Member	



**সেন্টমার্টিন দ্বীপের (নারিকেল জিঞ্জিরা) প্রবাল সংরক্ষণে সচেতন হোন**

**আপনি জানেন কি?**

বাংলাদেশে শুধুমাত্র সেন্টমার্টিন দ্বীপেই প্রবাল রয়েছে  
দ্বীপের জলসীমায় ৬৬ প্রজাতির প্রবাল জন্যে  
প্রবাল সেন্টমার্টিন দ্বীপের পরিবেশের গুরুত্বপূর্ণ অংশ

**দ্বীপের বিলুপ্তপ্রায় প্রবাল সংরক্ষণে আপনি  
কি করতে পারেন?**

- প্রবাল সংগ্রহ ও ক্রয়-বিক্রয় থেকে বিরত থাকুন;
- সমুদ্রে যে কোন ধরনের ময়লা-আবর্জনা ফেলা থেকে বিরত থাকুন;
- প্রবাল এলাকায় নৌকা-স্পীড বোট নোঙ্গর করা থেকে বিরত থাকুন।


**সেন্টমার্টিন দ্বীপের প্রবাল সম্পদ সংরক্ষণে পরিবেশ বিষয়ক শিক্ষা প্রকল্প**

বাস্তবায়নে নেচার কনজারভেশন ম্যানেজমেন্ট (নেকম)  
সহযোগিতায় SACEP, UNEP ও পরিবেশ অধিদপ্তর



**A sample of Poster**

**প্রবাল সেন্টমার্টিন দ্বীপের (নারিকেল জিঞ্জিরা) অনন্য বৈশিষ্ট**




**আপনি জানেন কি?**

বাংলাদেশে শুধুমাত্র সেন্টমার্টিন দ্বীপেই প্রবাল রয়েছে  
দ্বীপের জলসীমায় ৬৬ প্রজাতির প্রবাল জন্যে  
প্রবাল সেন্টমার্টিন দ্বীপের পরিবেশের গুরুত্বপূর্ণ অংশ

**সেন্টমার্টিন দ্বীপের বিলুপ্তপ্রায় প্রবাল সংরক্ষণে এগিয়ে আসুন**

**সেন্টমার্টিন দ্বীপের প্রবাল সম্পদ সংরক্ষণে পরিবেশ বিষয়ক শিক্ষা প্রকল্প**

বাস্তবায়নে: নেচার কনজারভেশন ম্যানেজমেন্ট(নেকম)  
সহযোগিতায়: SACEP, UNEP ও পরিবেশ অধিদপ্তর



## 2. Awareness Generation Programme for local stakeholders in Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands

### Activities

#### India

The educational awareness programmes were conducted at Andaman and Nicobar Islands in two Marine Protected areas viz. Rani Jhansi Marine National Park, Havelock in September 2008 and Mahatma Gandhi Marine National Park, Wandoor in November 2008.

The main purpose of this campaign is to reduce the anthropogenic stress by educating the children and stake holders and to provide opportunities to students & communities about marine conservation and ecologically sustainable development and make people understand the value and benefits of conservation of marine biodiversity.

In the first phase in September 2008, 40 school children were taken to mangrove and coral reef areas and there were explained about coral reef and mangrove ecosystem. The students were enthusiastic and eager to learn about the conservation of this marine environment. Later a drawing competition was organized and prizes were given to the winners.

In the second Phase a visit to the Mahatma Gandhi National park at Wandoor was undertaken for the school children from local villages and response from them were very encouraging. These children belong to the families who are involved in fishing and related activities in that areas and bringing awareness to them can make lot of difference. Under this environment campaign, 5 film shows were organized in schools premises, interpretation centers were placed to explain to the children on the importance of coral reef protection and quiz competitions were organized for these children and prizes were distributed to the winners. Further reading material were prepared in three local languages namely Hindi Tamil and Bengali. These school children were also encouraged to participate in the discussion in their native languages. It was noticed that these children coming from local villages become more interactive in their native language and this led to the winning of competition by a Girl who spoke and read poem in Tamil.

Further stake holders meeting was held with participation of local fishermen, tour operators and live interaction with them was beneficial and to understand the problems faced by them like request by tour operators beyond sunset, innocent passage by fishermen. Also eco-development committee at Guptapura participated in this educational programme. During the meeting under the PRI (Panchayat Rajyashree Initiative, the members were initially vociferous on the restrictions imposed in the MPA and after explaining to them about efforts taken by the authorities on the conservation and management of the marine environment and on how quality of fishing improved after these measures and how export of fishes in the international market has increased and later decided to support the authorities in management of coral reef

It is learnt from the project that

1. Early environmental education helps to shape children's value, perspective and understanding of the environment and how to interact with it.
2. Helps them to develop into adults who understand and care about environment.
3. Provides them with a sense of beauty, calm and refuge in sometimes frightening world.
4. Helps them understand the interrelationship of all life.

In the nutshell the workshops and field visits with school children and public

#### I. Organize Workshop and Awareness campaign for local fishermen and PRIs\*

It is proposed to take up various awareness generation activities like organization of workshops for local fishermen and PRIs to sensitize them about the significance of biodiversity conservation, eco-development processes and on how the conservation efforts in Park will help in uplifting their economy through generation of new employment opportunities.

II. **Two nature camps will be organized for local fishermen, PRIs.** Other extension activities will also be taken up with schoolchildren, tourists and general public.

III. **Film on the conservation of coral resources (10 performances)**

Awareness through Film show is one the most useful and accepted communication and awareness tools for reaching the target stakeholder group. Under this contract, 10 local Schools will be selected to held Film on Coral Reef Conservation, where the corals are exploited. One local group will be trained to prepare and implement similar performances so they can continue to raise awareness in future.

- IV. **Two Nature Camps** - 2 nature camps will be held on the area for continuing the awareness activities. An action plan will be developed for the Nature Camp so they can effectively contribute to, and complement biodiversity conservation activities ongoing on the area.
- V. **One Drawing competition and awareness campaign for schools** - creating awareness among 10 Local Schools across the MCPA.

**PROGRESS Report on Awareness Generation Programme for local stakeholders in Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands, India (under SACEP-UNEP) Project**

**Agency: Under the supervision of the Department of Environment & Forests (DoEF), Andaman & Nicobar Administration, Andaman and Nicobar Islands Environmental Team**

**Funding Agency:** UNEP GPA

**Duration:** 2 Months (October-November 2008)

**Location of Project:** Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands, India

**A report by Tasneem Khan, ANET, North Wandoor, South Andaman Island.**

**Background**

This is a report based on an Awareness Generation Program for local stakeholders and school children around The Mahatma Gandhi Marine National Park, Andaman & Nicobar Islands, India. The program was based on a need to increase environmental education and address responsible stewardship of natural resources and how to live in a sustainable manner. We hope to eventually create a new generation of islanders who will be conscious of the possibilities and limitations of the island environment.

**Objectives**

To educate people through various means of awareness activities about conservation of marine biodiversity and motivate them to support the conservation efforts of the Department through their active involvement.

**Our approach** has been to start creating resource people by conducting a training workshop for teachers, individuals from the tourism industry and various other enthusiastic local people. These resource people and the forest department together assisted us to conduct awareness generation programs and nature camps for students, fishermen and PRI (Panchayat Raj Institution) members who live in close proximity of the Mahatma Gandhi Marine National Park.

**Marine Protected Areas in the Andaman Islands**

**General :** The Andaman group of Islands contains 2 Marine National Parks, ie. 2 of the 3 MNPs in the country. The Mahatma Gandhi Marine National Park which lies to the south of the South Andaman Island, covering 281.5 sq km of both land and water. The Rani Jhansi Marine National Park which lies within Ritchie's Archipelago, off the east coast of the South Andaman Island. This covers an area of 256.14 sq km, including land and waters.

The Department of Environment and Forests, Andaman and Nicobar Administration manage the marine National Parks. They are controlled by the Deputy Conservator of Forests, Wildlife division and on a day-to-day basis by a forest Range Officer.

**Mahatma Gandhi Marine National Park (MGMNP)**

MGMNP is situated at Wandoor, 19 km west of Port Blair in the South Andaman Island. This park is one of the most important areas, and exhibits phenomenal biodiversity within several different ecosystems.

It was established in 1983 with a view to protect and conserve the biodiversity of coral reefs, mangroves and tropical evergreen forest. Spread over 15 islands in the Labyrinth group and the waters between them, it stretches across 281.5 sq km of which 61 sq km is land and 220.5 sq km territorial water.

**Islands within MGMP**

Alexandra, Belle, Boat, Chester, Grub, Hobday, Jolly Buoy, Malay, Pluto, Redskin, Rifleman, north western coast of Rutland (partially), Snob, Twins, Tarmugli.

**Time schedule**

The initial proposal and plan was to conduct this project over a span of four months and fifteen days, ie. From the 1<sup>st</sup> of July to the 15<sup>th</sup> of November, 2008. However, it's acceptance by SACEP and the confirmation for funding only came through in the last two weeks of September. We began our

activities immediately and the fund was subsequently transferred to MCBT on the 6<sup>th</sup> of October 2008.

Given our time constraints (2 months), A.N.E.T with the cooperation of DoEF A&N Administration has completed all the activities and met the 'deliverables' mentioned in the initial proposal with slight variation or modification in some cases.

**Activities Undertaken**

- **Nature Camps to spread environmental awareness and create resource people for the workshops and awareness campaigns to follow.**
- **Workshops for school children on environmental awareness with Nature trails.**
- **Drawing competition for schools.**
- **Screenings of films on the marine ecosystem and resources.**
- **An awareness campaign and workshop for stake holders (fishermen and tour operators).**
- **An awareness campaign and workshop for PRI members.**

**Material produced as an outcome of this project:**

In anticipation of future projects and environmental awareness for stakeholders and other participants in the conservation and development of the Mahatma Gandhi Marine National Park at Wandoor, South Andaman Island, educational material has been made for 8 schools, to target students and teachers of all age groups. Each set comprises three displays:

1. On the Biodiversity of the Andaman Islands
2. The coral reef ecosystem in the Andaman context
3. Mangrove ecosystems in the Andaman context

These 2 dimensional displays comprise of text about these natural resources in the situation present in the Andaman Islands and are complimented by images and illustrations. These posters are printed in colour at a high resolution measuring 4 feet x 3 feet on flex/vinyl material that is weather proof. These have been designed and executed by Tasneem Khan and Umeed Mistry.

We have also designed a calendar using the best posters made by the children during the workshops; this will be printed by the Department of Environment and Forests ANI.

Both the educational material and the calendar carry the logos of UNEP, SACEP, the EU, ICRAN the Department of Environment and Forests ANI and ANET.

**Summary of Activities**

<b>ACTIVITY</b>	<b>Number of activities</b>
Awareness campaign for local fishermen and PRIs*	2
Awareness campaign for schools Nature camps	6
Awareness campaign for schools Drawing competition	5
Awareness campaign for schools Film shows	10

Total number of Attendees

<b>Category</b>	<b>Participants</b>
Number of people (from local fishermen and PRIs) receiving Awareness	100
Students attending Drawing competition and awareness campaign for schools	257
Students attending Film shows 5 Schools	250
Students /people attending Nature Camps	200
Materials disseminated	45+24



### **3. Building Youth Constituency to Conserve Coral Reef Ecosystem In Maldives' Baa Atoll**

#### **Activities**

#### **Maldives**

It was informed that due to change of government and administrative reasons the funds were transferred to respective agency to conduct the events in November 2008 and also due to long holidays for school children it is proposed to conduct these events in December 2008. The initiatives taken to organize the educational awareness campaign were presented

Further efforts are being taken to get additional funding from Government for this programme

- I. Training 25 empowered and informed young people to run and support awareness activities at three island of Baa atoll within a period of three months: the age group will be students studying at grades 8 and 9 of secondary schooling.
- II. Field trips to protected areas and photography of globally significant species in Baa atoll with the trained young people
- III. Design and production of awareness materials, toolkits for conducting Awareness Island level workshops by the trained young people.
- IV. Partnering with NGO's and environment clubs to mobilize the trained agent for change in awareness activities within Baa Atoll.

#### **4. Environmental Education Activities with reference to Coral and Coral Reefs in Marine and Coastal Protected Area, Site, Jewani (Gwater Bay)-Pakistan**

##### **Activities**

#### **Pakistan**

##### **I. Preparation of Education Materials:**

- Photographs of different species of corals will be used for printing of posters carrying attractive messages and catchy captions in English and local languages. The posters will be distributed amongst students and displayed in schools and other educational and cultural institutions.
- A brochure with first hand information on importance of corals and coral reefs and their occurrence in Pakistan particularly in Gwater Bay will be produced for raising public awareness and to increase the profile of corals at that MCPA site. These brochures will be printed in English and in local languages as well.
- Promotional items like T-shirts depicting dominant coral species found in the proposed project area with convincing message for conservation of marine environment will be produced in different sizes and distributed amongst local communities specially students when they are participating in the educational program for raising the importance of coral reefs and the associated ecosystem.

##### **II. Production of Documentary Film**

- A documentary film is a useful tool for spreading conservation message in communities and general public. The duration of the documentary will be 15-20 minutes with background commentary in English and local languages. The documentary covering potential coral reef areas with different species of corals will be prepared with the assistance of a professional under water film producer and expert divers. It will be shared with other representative countries of SACRTF.

##### **III. Development of signboards**

- Education and publicity for environmental projects will be enhanced by erection of attractive signboards with beautiful pictures and meaningful messages. Few signboards with colorful paintings of coral and coral reefs in their habitat will be developed using non corrosive galvanized metallic sheet and wooden frame carrying easily understandable conservation captions and slogans in English and local languages with phosphorescent paints for highlighting the importance of the species and area. These signboards will be installed at important sites along Jewani coastal area.

This complete report received from Pakistan was presented by Mr Hiran Tillekaratne of SACEP as the delegates could not participate in the meeting

## PROGRESS REPORT

### ENVIRONMENTAL\_EDUCATION PROJECT ON CORAL AND CORAL REEFS

Title Environmental Education Activities with reference to Coral and Coral Reefs in Marine and Coastal Protected Area, Site, Jiwani (Gwater Bay)-Pakistan

Implementing Agency	Sindh Wildlife Department (SWD), Government of Sindh.
Collaborating Agency	Pakistan Wetland Project, Ministry of Environment, Government of Pakistan and WWF-Pakistan
Duration	Five Months (July-November 2008)
Location of Project	Jiwani, (Gwater Bay)-Pakistan

The Ministry of Environment, Government of Pakistan implemented activities for protection and conservation of marine & coastal through Pakistan Wetland Program in collaboration with local communities and concerned agencies. Despite current Protection measures, the degradation of coastal and marine resources continues at an unprecedented rate not only in Pakistan but it occurs throughout Southeast Asian region and therefore the United Nations List of Protected Areas ranked this region at the lowest in-terms of declared Marine and Coastal Protected Areas (MCPAs). It also pointed out that Indian Ocean with its wealth of corals reefs, sea grasses and mangrove forests is the world's most poorly protected ocean.

In view of meagre information and knowledge on corals available in Pakistan, the funding of US \$ 5500.00/- for Education and awareness program has been approved to by UNEP through SACEP Secretariat to achieve the following main objectives along Jiwani coast.

#### Objectives

- Education of masses through print and electronic media to raise awareness of the importance and value to coral reefs and associated ecosystems at Jiwani (Gwater Bay) and to explain to the public the long term sustainable benefits of the MCPS.
- Production of a documentary film on corals and coral reefs in the proposed project site.
- Exchange of information on coral reefs and associated ecosystem with other South Asian Marine and Coastal Protected Areas.

Involvement of local communities and students for participation in various field activities and education programs in collaboration with WWF-Pakistan such as beach cleaning, quiz competition, photo exhibition, rallies, walks, talks and festivals.

#### Activities Undertaken

##### 1 Preparation of Education material

###### Printing of Poster

A poster of the size 17"x22", with 4 colour printing on 15 gm art paper is designed depicting coral pictures and attractive captions for conservation of corals and associated marine ecosystems. These posters are being printed in English and Urdu language so that the message can be easily understood by local community particularly school students and fishermen. These posters will be displayed in school and other education and cultural institutions for public awareness.

###### Printing of Brochure

A 3 fold brochure with first hand information on corals & coral reefs of Jiwani coast have been printed on 135 gm art paper with 4 colour printing measuring a size of 12" x 8". The brochure covers pictures of important corals and other species in the surrounding ecosystem observed during underwater

surveys along Jiwani coastal area. English and Urdu are used in brochure in order to make it more easily understandable for students and local community.

### **Printing of T. Shirts**

100% cotton polo T- shirts in three adult sizes have been purchased and printed with a picture of dominant species of coral carrying a simple but attractive and catchy conservation message along with few logos as decided under MOU signed by SWD and SACEP.

T- Shirts will be distributed amongst local communities specially students when they participate in educational programs for raising importance of coral reefs and associated ecosystem.

## **2. Production of documentary Film**

Documentary film is a useful tool for educating the public in local communities. A 15-20 minutes documentary film on coral and coral reefs along Jiwani coast (Gwater Bay) is under production. The work is in progress through the services of professional divers and hiring of underwater photographer/film maker. During the first survey from 8<sup>th</sup> to 12<sup>th</sup> October 2008, underwater photography of corals could not be done due to invisibility in the sea at all the localities mentioned in Table-2. Only few still photographs were taken showing coastal area, local communities, fishermen and students during workshops and lectures.

After 45 days, the team visited again to Jiwani for making film using underwater photographic equipment as there is a possibility of clear weather and more chances of visibility in the sea but unfortunately when they arrived at Gwadar, they have to face a very strong wind action causing turbulence in sea water and consequently resulting invisibility. Eventually the team had to come back to Karachi and wait for 3 more days and then proceed on the Jiwani on 01-12-2008, as the wind action becomes calm down now with less turbulence and a little bit high visibility.

During this visit still photographs and movie of corals and the surrounding area were taken. The photographs are enclosed herewith whereas the movie is in the process of editing and dubbing.

## **3 Development of Signboards**

Educational activities have been increased by using signboards in different designs carrying important messages in English and Urdu languages for protection of corals and conservation of marine resources. These signboards are made of non corrosive galvanized metallic sheet with wooden frame, painted with phosphorescent paints for highlighting the importance of the species and area. Five signboards of the size 6x4 ft will be erected at potential coral sites in Jiwani.

### **Result**

After conducting offshore and underwater surveys it is observed that there are only two potential sites where corals can be found along Jiwani coast. These areas are Gunz and Daran. Coral Reefs were observed in patches on few diving points near Daran. Dead specimens of corals were also collected from the coastal area along Gunz showing the existence of variety of corals. Photographs taken during the surveys and workshops/lectures are enclosed here for reference. Education material is prepared and will be distributed among the students and local communities for education and awareness. Documentary film will also be used in educational and cultural organization for public awareness and motivation for conservation of coral and associated marine resources. Signboards will be useful for spreading the conservation message on project site especially at Daran and Gunz.

### **Future Plan**

The project activities will be enhanced by conducting more extensive surveys and research for exploring more coral area and species in Pakistan.

**Table 1 UPDATE FOR EDUCATION GRANT**

**Targets and Achievements for Coral Project at Jiwani**

**September to December 2008**

<b>S. No.</b>	<b>Activity</b>	<b>Targets</b>	<b>Achievements</b>	<b>Funding approved US\$</b>	<b>Funding utilized US\$</b>
1	Production of 15-20 min. Documentary	1No.	70% Work in progress	2460.00	1700.00
2	Printing of Posters of size 17"x22", 4 colour printing on 135 gm art paper	1000 Nos.	Work in progress	330.00	-
3	Printing of Brochures of 12"x8", 4 colour printing on 135 gm art paper, 3 folds	1000 Nos.	80% Work in progress	496.00	496.00
4	Purchase & Printing of T-Shirts in 3 sizes on 100% cotton	400 Nos.	100 %	984.00	984.00
5	Installation of Signboard The size 6ft x 4 ft on Including material, double side painting and transportation at Jiwani.	5 Nos.	75% Work in progress	820.00	820.00
6	Miscellaneous	LS	LS	410.00	-
	<b>Total</b>			<b>5500.00</b>	<b>4000.00</b>

**Table 2 Survey of various localities for observation of corals at Jiwani**

Site No	Date	Location	GPS Position	depth	Remarks
1	9-10-08	Jiwani WWF Wetland Centre	N- 25 02 770 E- 61 44 144	Surface	No corals
2	9-10-08	Garyan	N- 25 00 948 E- 67 46 664	Surface	No corals
3	10-10-08	Garyan	N- 25 01 491 E- 61 42 354	28 ft	No corals, found sand, no visibility
4	10-10-08	Garyan	N- 25 01 303 E -61 43 028	10 ft	No visibility, found stones
5	10-10-08	Kipto mountain	N- 25 01 284 E - 61 44 073	10 ft	
6	10-10-08	Site near Kipto	N- 25 00 928 E- 61 44 103	10 ft	
7	10-10-08	Garyan	N- 25 00 928 E- 61 46 557	15 ft	Visibility is here but no corals
8	10-10-08	Chirillo	N- 25 01 264 E- 61 47 341	10 ft.	Clear water algae & stones, no corals
9	10-10-08	Daran Turtle Beach	N- 25 01 309 E- 61 47 803	Surface	No Snorkeling
10	10-10-08	Dedello Gazeera	N- 23 01 292 E- 61 47 918	Surface	No snorkeling (25-30 ft depth at sides when exposed told by fishermen)
11	10-10-08	Gunz village	N- 25 05 784 E- 61 52 170	Coastal Area	Met with Fishermen
12	2-12-08	Guns Area	N- 25 03 347 E- 61 52 542	18 .5 m	Found Coral <i>Clathraria sp.</i> was common distributed in patches
13	2-12-08	Guns Area	N- 25 05 017 E- 61 51 947	10 feet	Corals not observed
14	2-12-08	Guns Area	N- 25 04 540 E- 61 52 303	20 M	No corals
15	03-12-08	Daran	N- 24 57 411 E- 61 50 956	110 feet	Could not dive due to deep depth
16	03-12-08	Daran	N- 25 00 836 E- 61 50 413	40 feet	Soft Corals found such as <i>Anella sp.</i> , <i>Menella sp.</i> , <i>Echinogorgia sp.</i> / Polychete worms, sponges and fish abundant
17	03-12-08	Daran	N- 25 04 117 E- 061 49 196	8 M	Soft Corals found such as <i>Anella sp.</i> , <i>Menella sp.</i> , <i>Echinogorgia sp.</i> Hard Corals found such as <i>Favites sp.</i> Sea urchin and fish abundant



## **5. Awareness and Capacity Building Programme for The Effective Management of Marine Resources in the Bar Reef Marine Sanctuary, Sri Lanka**

### **Activities**

The Wildlife department traditionally focusing on terrestrial activity has been entrusted and started working on coastal management activity. The School awareness campaign has been initiated and coastal communities have understood importance of coral conservation. Efforts are made to reduce rampant exploitation of near shore fisheries close to coral reef. The grant received was useful to bring awareness and more such campaigns are planned

#### **I. Awareness Phase**

Briefings will be provided to DWLS staff to provide back ground information on the objectives and target of this program and identify implementation mechanisms.

#### **II. Capacity Building-Enhance capabilities of wildlife officers for conservation of coral reef ecosystem at the area**

Upgrade knowledge and skills of Field managers (WILDLIFE OFFICERS) in order to enable and empower themselves to efficiently discharge their duties. Apart from the formal basic training in biodiversity conservation, which is essential for all staff for laying the foundation, the field staff will be provided opportunities for 'on the job' and "in service" training.

List of components for basic training for the field staff

<b>Training Components</b>	<b>Training Elements</b>
Community outreach	<ul style="list-style-type: none"> <li>• Basic concepts of coral reef conservation</li> <li>• Role of DWLC in wildlife protection</li> <li>• Role of MCPAs in resource protection</li> <li>• Participatory planning methodology</li> </ul>

#### **iii. Awareness Programme for Local community**

An awareness programme will be conducted to educate the local community in and around the Bar Reef Sanctuary those who are involved in fishing and illegal activities. In addition, school children awareness programme will be conducted.

List of components for basic training/awareness programme for the local community

<b>Components</b>	<b>Training Elements</b>
Awareness programme for local community, and school children on Importance of Coral reef conservation	<p><b>Awareness Workshop</b></p> <ul style="list-style-type: none"> <li>• Introduction to coral reef and species in the ecosystem</li> <li>• Importance of coral reef &amp; fishes</li> </ul> <p><b>Videos/films</b></p> <ul style="list-style-type: none"> <li>• Importance of coral reef protection and release of by caught turtles</li> <li>• Sustainable Fishing-use of fishing nets</li> </ul>
Art competition and exhibition for school children	<p><b>Themes</b></p> <ul style="list-style-type: none"> <li>• Coral reef conservation</li> <li>• Turtle conservation</li> <li>• Importance of marine ecosystem and the role of MCPAs</li> <li>• Sustainable fishing</li> </ul>

#### **iv. Production of awareness/educational materials**

**PROGRESS REPORT ON**  
**AWARENESS AND CAPACITY BUILDING PROGRAMME FOR THE EFFECTIVE MANAGEMENT**  
**OF MARINE RESOURCES IN THE BAR REEF MARINE SANCTUARY, SRI LANKA**



**DECEMBER, 2008**

**DEPARTMENT OF WILDLIFE CONSERVATION, 382, DILCO COURT**  
**NEW KANDY ROAD, MALABE, SRI LANKA**

### **01. Introduction**

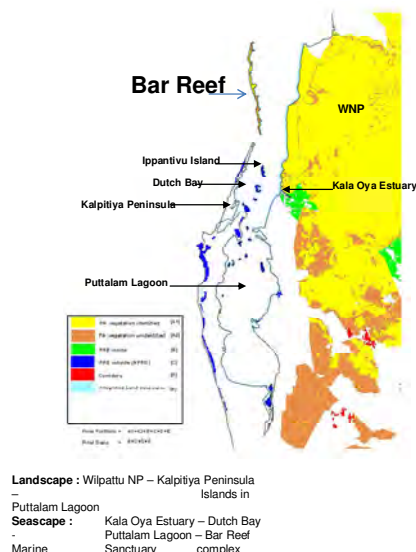
The Bar Reef was declared a marine sanctuary under the Fauna and Flora Protection Ordinance in 1992. At the time of its declaration the Bar Reef was one of the best reefs in the country. The living hard coral cover was over 80% with more than 150 species of corals. The fish populations were also very high with 34 species of butterflyfish which was an indicator on the level of health of the coral reefs. The major threats to the Bar Reef from human activities in the early 1990's were the use of bottom set nets to catch spiny lobsters and moxy nets to collect ornamental fish species. The natural threat was from periodic population increases of the Crown of Thorns starfish which devoured sections of living corals of the reef. The major coral bleaching event in 1998 caused extensive damage to the coral reef where nearly all of the living corals in the shallow reef areas were killed. Although the condition of the reef deteriorated rapidly after the bleaching event in 1998 fishing activities began to increase with more destructive fishing activities. The most damaging of these new types of fishing gear was the use of purse seines locally known as 'Laila net'. The Laila net is used in all of the reef habitats in the Bar Reef and has resulted in severe damage to the corals and also depletion of fish stocks.

Although purse seining within 7 miles from the coast is prohibited under the fisheries regulations it is carried out at the Bar Reef Marine Sanctuary. In addition bottom set nets and moxy nets are still used and the combined impact of all of these continues to have a severe impact on the status of the reef and its productivity. The coral reef has begun to recover since the 1998 coral bleaching event and its recovery is seriously affected by the continued use of the above mention destructive fishing methods.

In the mid 1990's the Bar Reef was identified as an important site for Special Area Management by the Department of Coast Conservation and it was included in the Coastal Zone Management Plan, 1997. The Special Area Management Planning was carried out from 2000 to 2006 by the Coastal Resources management Project with financial assistance from the Asian Development Bank. An Environmental Profile and a Management Plan has been published identifying all issues pertaining to the Special Area of Bar Reef and Kalpitiya.

A key issue identified for the lack of management is the lack of policing and trained staff for implementation of the sanctuary regulations and to carry out participatory management of resource

use. This project proposal focuses on this aspect of management which is crucial for the successful implementation of recommendations in the Special Area Management Plan and in other reports and publications.



The project has been started in the last quarter of 2008, and comparatively the progress of project is low due to unfavourable security situation in the project site. Given funds were committed for proposed activities.

## 02. Goals & Objectives of the proposed project

The Goals of program are as follows:

01. To raise DWC officers' knowledge and awareness of the importance of coral reef conservation
02. To provide basic equipment training for effective resource protection and management
03. To facilitate training in marine resources Conservation including coral reefs
04. To raise Local community's/school children's knowledge and awareness of the importance of coral reef conservation

## Objectives

- Implement marine sanctuary regulations and legal provisions of Fauna & Flora Protection Ordinance
  - Training for staff of the Department of Wildlife Conservation
  - Providing basic equipment training for effective resource protection and management
- Involve the community in participatory management of resource use.
  - Conduct group meetings with fisher community to develop participatory management of the MPA.

## 03. Expected Results

### 03.1 Impact :

Establish an appropriate wildlife staff organization with skilled staff for handling basic equipments for effective resource protection and management at Bar Reef Sanctuary in Sri Lanka.

### 03.2 Outcomes :

Enhance capabilities of wildlife officers for conservation of coral reef ecosystem at the area.

Enhance the knowledge of local community for conservation of coral reef ecosystem at the area

**03.3 Outputs :**

1. Knowledgeable DWC staff in Coral reef Conservation
2. Effective law enforcement
3. Knowledgeable DWC staff in basic equipment handling in Coral reef Conservation
4. The active and effective involvement of DWC officers in marine ecosystem conservation.
5. Effective monitoring in preserve coral reef ecosystem from destructive exploitation.
6. Active community participation in marine resources conservation
7. Production of a leaflet and two posters on coral reef conservation

**04. Progress of Main Activities of the Project.**

**4.1. Progress of Awareness Phase**

Awareness phase of this program has aim to give explanation about back ground, objective and target of this program to DWC staff who were involved in ecosystem conservation awareness campaign. Besides of that the staff identified the target of the program, working mechanism, and the responsibility of program implementer.

**4.2. Capacity Building**

With the support of local expertise those who involved in coral reef conservation field managers' (WILDLIFE OFFICERS) knowledge and skills in order to enable and empower themselves to efficiently discharge their duties on coral reef conservation was upgraded. That training opportunity was called 'on the job' and "in service" training.

Participation in training workshops and specialized courses is a standard means for acquiring professional knowledge and skills. Table 4.1 provided and indicative list of components on which basic training should be provided to all staff.

Table 4.1: List of components for basic training for the field staff

Sr. No.	Training Components	Training Elements
1	Coral Reef & Marine Resources Protection	1.1 Detection & processing of wildlife offences 1.2 Anti-poaching operations/patrolling 1.3 Maintenance of boundaries 1.4 Assessment of damage
2	Field Craft	2.1 Identification of coral reef and species in the ecosystem 2.2 Identification of sea grasses 2.3 Recording of basic data on coral reef & habitats attributes 2.4 Boat handling 2.5 Snorkeling 2.6 Diving 2.7 Use & maintenance of essential equipments



**Fig.1: Awareness programme for Wildlife Officers**

### 4.3. Awareness Programme for Local community

An awareness programme was conducted to educate the local community in and around the Bar Reef Sanctuary those who are involved in fishing and illegal activities. Three programmes were conducted at following villages in Kalpitiya area.

Anawasala  
Kandakuliya  
Janasavigama



**Fig.2 : Awareness programme for local community**

Table 4.2 provides an indicative list of components on which basic training/awareness programme provided to the local community.

Table 4.2: List of components for basic training/awareness programme for the local community

Sr. No.	Components	Training Elements
1	Awareness programme for local community, and school children on Importance of Coral reef conservation	<b>Lectures/Workshop</b> Identification of coral reef and species in the ecosystem Importance of coral reef & fishes <b>Videos/films</b> Identification of coral reef and species in the ecosystem Importance of coral reef Prevention and release of by caught turtles Sustainable Fishing-use of fishing nets

In addition, school children awareness programme was conducted. School children were given blank papers and paints and pencils for drawing paintings as an art competition on following themes. Schools have been closed for vacation and competition will be conducted in January, 2009.

1	Art competition and exhibition for school children	<b>Themes</b> Coral reef conservation Turtle conservation Importance of marine ecosystem Sustainable fishing
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### 4.4 Production of awareness/educational materials

Two posters have to be produced to aware the general public on importance of coral reef and existing ecosystem. A leaflet will be produced to identify the coral species and their importance. These educational materials will be helpful in educating the local people and school children. These two posters will be designed using the winning paintings of the school art competition. The posters will be published in end of January, 2009. A leaflet on coral identification is on designing phase

### 4.5 Training on Community Outreach

Because of existing security situation in the area, this component has not been covered. During the month of January, 2009 this component will be completed. In this case wildlife officers were trained in community out reach concept that will be help to establish a bridge between wildlife officers and the local people.

Two posters will be produced to aware the general public on importance of coral reef and existing ecosystem. A leaflet will be produced to identify the coral species and their importance. These educational materials will be helpful in educating the local people and school children.



**ANNEX B**  
**Activity and Events INTERNATIONAL YEAR OF THE REEF (IYOR)**

**Activity Events and Progress - International Year of the Reef (IYOR 2008)**

**1.) Sri Lankan cricket star, Mr. Kumar Sangakkara as the IYOR Ambassador**

For the IYOR 2008, Mr. Kumar Sangakkara, famous wicket keeper and batsman of the Sri Lanka Cricket team selected as Brand Ambassador for raising profile of the Coral Reef Task Force and IYOR activities in South Asia.



**2.) Developed a range of IYOR merchandise**

- **calendar, and leaflets**

Produced and distributed leaflets, brochures, stickers and posters to educate the public about the value of coral reef.



*IYOR Stickers*



*Year Planner Published to celebrate the IYOR-2008*

- **Drink holder and Plaque**



*Printing Tea Mug*



*Printing Plaque*

- **Launch of the Commemorative First Day Cover to Celebrate International Year of Reef (IYOR) 2008**

South Asia Coral Reef Task Force (SACRTF) which was established in July 2007 to address the growing concerns of coral reefs conservation in the South Asian Seas region launched a commemorative First Day Cover on 25<sup>th</sup> November 2008 at the Auditorium of the Postal Headquarters, Colombo Sri Lanka under one of its scheduled activities to celebrate the International Year of Reef (IYOR) 2008.

The chief guest of the occasion was Hon. Minister Mr.Mahinda Wijesekara, Minister of Posts and Telecommunication, Ministry of Posts and Telecommunication, Government of Sri Lanka. It was also attended by Hon. Mr.M.S.Sellasamy, Deputy Minister, Ministry of Posts and Telecommunication, Mr.K.G.Leelananda, Secretary, Ministry of Posts and Telecommunication, Mr.M.K.B Dissanayake, Postmaster General.



The welcome address and the theme introduction of the IYOR 2008 was delivered by Dr. A. A. Boaz, Director General of South Asia Co-operative Environment Programme (SACEP). Hon. Minister Mr. Mahinda Wijesekara, Minister of Posts and Telecommunication delivered the keynote address and in his speech while praising the role that SACEP is playing for the conservation efforts of the coral reef and IYOR activities in the region, he also highlighted the importance of preserving this fragile ecosystems as a breeding ground for the fish and other marine species.

The first day cover was officially stamped by the Hon Minister and was distributed among the distinguished gathering.



Launch of a commemorative First Day Cover on 25<sup>th</sup> November 2008 at the Auditorium of the Postal Headquarters, Colombo Sri Lanka Hon. Minister Mr. Mahinda Wijesekara, Minister of Posts and Telecommunication, Government of Sri Lanka and Hon. Mr. M.S. Sellasamy, Deputy Minister, Ministry of Posts and Telecommunication grace the occasion

**3.) Coral Reef competition for school students. Encourage the next generation to care about coral reefs –**

To celebrate the IYOR, South Asia Co-operative Environment Programme (SACEP) South Asian Seas (SAS), South Asia Coral Reef Task Force (SACRTF) & Center for Environment Education (CEE) organised a regional School Essays, posters & paintings Competition among the five maritime nations Bangladesh, India, Maldives, Pakistan and Sri Lanka on behalf of the International Year of Reef. The main theme is "Help Conserve Coral Reef in South Asian Region". Winners are awarded with Medals, Cash Prizes and Certificates. (See the **(Annex Leaflet)**)

**4.) Promote the IYOR by linking SACEP web site to the IYOR web site and organise Regional beach clean up.**

- Country Governments were asked to contribute to the Beach Cleaning Day as a function of the IYOR on 3<sup>rd</sup> week of September, 2008 as a Special 'Day of the Coral Reef' in 2008 – with the public festival / street parade with a focus on celebrating coral reef. India and Sri Lanka conducted a several campaign II along the coastline.
- SACRTF web portal was launched at the 2<sup>nd</sup> Meeting of the SACRTF on the SACEP website.

<b>ANNEX C</b>	Projected Annual Operating Costs of the SACRTF
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<b>Action</b>	<b>Unit Cost</b>	<b>No. of Units</b>	<b>Total US\$</b>
<b>International Travel (Flights) for SACRTF meetings (regional)</b> - <i>Based on average flight costs of US600. 20 people flying from within the region for each meeting. 2 meetings per year for the SACRTF.</i>	600	40	24000
<b>DSA for SACRTF meetings (regional)</b> - <i>Based on SACEP Per Diem for Sri Lanka US110 per day and 3 days DSA (accommodation and food and local travel costs included) for each person (25 people per meeting)</i>	110	150	16500
<b>International Travel for other meetings and conferences of strategic value to SACRTF efforts (flights)</b> - <i>Meetings of strategic importance, internationally and locally to promote SACRTF efforts and SA situation based on an average of US\$800 per flight</i>	800	5	4000
<b>DSA for other meetings and conferences</b> - <i>As above, based on SACEP DSA rate of US\$110 per day, 3 days per meeting</i>	110	15	1650
<b>Meeting/Convention Attendance or Visa Fees</b> - <i>Based on an average meeting or conference fee of US\$200 (e.g. ITMEMS registration)</i>	200	5	1000
<b>SACRTF Secretariat (SACEP)</b> - <i>Consider hiring a staff member to work specifically on coordinating SACRTF efforts within SACEP and act as support to the Member Secretary. Based on annual salary for medium grade candidate</i>	4000	1	4000
<b>Communications</b> (telephone, office supplies)	2000	1	2000
<b>Outreach Materials</b> (design, production & dissemination)	2500	1	2500
<b>Exchange/Exposure Visit Programme</b> – <i>Based on a grant of US\$1000 to each candidate for all costs (8 candidates per year)</i>	1000	8	8000
<b>Activities Fund</b> - <i>to allow the SACRTF to undertake activities in line with the work plan each year</i>	10000	1	10000
<b>SUBTOTAL</b>			<b>73,650</b>
Indirect Charges (SACEP administration) 15%	11047.5		11047.5
<b>GRAND TOTAL</b>			<b>84,697.5</b>

**AGENDA 3<sup>rd</sup> Meeting South Asia Coral Reef Task Force (SACRTF)**

<b>16<sup>th</sup> December, 2008 INAUGURATION 09.00 – 09.30</b>	
<b>8.45</b>	Participants & Guests take their seats
<b>9.00</b>	Arrival of Chief Guest Dr C K Sreedharan IFS Principal chief conservator of Forests Tamilnadu
	Welcome Address – Dr. Arvind Boaz, DG- SACEP
	Address by the Hon. Chairman-SACRTF
	Message from Hon. Patron Judge C. G. Weeramantry, Former Vice Chairman, International Court of Justice & Hon. Patron of SACRTF Read by Mr Neshan Gunasekera Deputy Director Weeramantry International
	Address by Dr Teleki, Director, ICRAN
	Speech by Dr B R Subrmanian Director ICMAM
	Address by Chief Guest Dr C K Sreedharan IFS Principal Chief Conservator of Forests Govt of Tamil Nadu India
	Vote of Thanks
<b>9.30</b>	Coffee Break
<b>SESSION 1 – INTRODUCTORY SESSION</b>	
<b>10.00</b>	Introduction and Progress of SACRTF from the last two Meetings <ul style="list-style-type: none"> <li>• Environmental Education Call for Action Grants-Final Reports and next stage</li> <li>• Progress of IYOR Activities</li> <li>• Managers Exchange programme hosted by the GEER Foundation in November,2008</li> </ul>
<b>10.15</b>	Coral Reefs and Livelihoods Initiative – Impacts and key outputs <i>- Jerker Tamelander, Coordinator, CORDIO/Indian Ocean IUCN Global Marine Programme</i>
<b>10.30</b>	South Asia MCPA project –final update and key outputs. <i>-Nicola Barnard, Senior Programme Officer, ICRAN</i>
<b>SESSION 2 – COORDINATION AND INFORMATION SHARING SESSION</b>	
Review of progress and major initiatives related to MCPAs/ coral reefs and the SACRTF work plan : <ul style="list-style-type: none"> <li>• New activities which raise the profile of MCPAs</li> <li>• New key policy developments</li> <li>• New funding opportunities</li> <li>• Major new initiatives</li> <li>• Milestones for the next year and potential role of the task force to advance them.</li> <li>• National Coral Reef Task Force (NCRTF) activities and sharing of experience</li> </ul>	
<b>10.45</b>	Bangladesh
<b>11.00</b>	India
<b>11.15</b>	Maldives
<b>11.30</b>	Pakistan
<b>11.45</b>	Sri Lanka
<b>12.00</b>	Discussion
<b>12.30</b>	Lunch
<b>SESSION 3 – Activities of SACRTF</b>	
<b>13.30</b>	Sustainable Financing and Institutionalisation of SACRTF Discussion - <i>lead by Dr. Arvind Boaz, SACEP.</i> <ul style="list-style-type: none"> <li>• Update of key actions/ materials to advance institutionalisation of the SACRTF with country governments</li> <li>• Proposed next steps and national commitments to facilitate the continuation of the SACRTF.</li> </ul>

14.30-	<p>Regional Strategy for coordinated responses to marine and coastal issues within the South Asia region  <i>Dr. C.N. Pandey, Director, Gujarat Ecological Education and Research (GEER) Foundation, Gujarat, India</i></p> <p>Update on progress in developing the regional strategy for South Asia. Draft strategy for presentation. Strategic opportunities to advance the uptake of the regional strategy beyond the life of the South Asia MPCA Project.</p>
15.15	Coffee Break
<b>SESSION 4 – SACRTF ADMINISTRATION</b>	
16.30	<p>SACRTF administration issues:</p> <ul style="list-style-type: none"> <li>• Official launch of the SACRTF Publications</li> <li>• Report on meetings attended by SACRTF members during 2008.</li> <li>• Meeting/Event Calendar mapping and opportunity in the year 2009 <ul style="list-style-type: none"> <li>○ Opportunities</li> <li>○ Purpose and message</li> <li>○ Potential funding sources</li> </ul> </li> <li>• Further development of promotional and outreach materials</li> <li>• Next Venue and Date of the SACRTF Meeting</li> </ul>
17.30	Meeting Close

<b>17<sup>th</sup> December, 2008</b> <b>Showcasing products and partnerships for MCPA management and livelihoods enhancement in South Asia</b> organized by IUCN, ICRAN, CORDIO and SACEP	
The session will focus on key achievements of the Coral Reefs and Livelihoods Initiative (CORALI), a collaborative process under two regional coastal ecosystem management projects, funded by the European Union and the Ministry for Foreign Affairs of Finland and implemented by IUCN, ICRAN, CORDIO, and SACEP, as well as several regional, national and local partner institutions.	
<b>09:00</b>	<p><b>Livelihoods enhancement and community development for sustainable resource management</b></p> <p><i>Abstract:</i> Poverty and natural resource dependence are among the key constraints to sustainable natural resource management and biodiversity conservation in South Asia, but are often not firmly integrated into conservation and management processes. Empowering people to make informed and sound livelihoods decisions can strengthen their capacity to take an active and meaningful role in management, while improving food security and income.</p> <p><i>Speakers:</i> Indra Ranasinghe, Ministry of Fisheries and Aquatic Resources, Sri Lanka; Nicola Barnard, ICRAN</p> <p><i>Products</i> to be launched and showcased include the following:</p> <ul style="list-style-type: none"> <li>- Sustainable Livelihood Enhancement and Diversification (SLED) Process Guidance</li> <li>- Systematic Approaches to Livelihood Enhancement and Diversification: A Review of Global Experiences</li> <li>- Socioeconomic Monitoring Guidelines for Coastal Managers of South Asia</li> </ul>
<b>10:30</b>	Coffee Break
<b>11:00</b>	<p><b>Strengthening management of protected areas – research, monitoring and management tools</b></p> <p><i>Abstract:</i> MCPAs present an invaluable tool in meeting the challenges of resource and biodiversity degradation in South Asia, but management effectiveness is in most cases relatively weak. Further, while research and monitoring have grown stronger over the past decade, the application of results in management and policy setting remains constrained, in part due to capacity gaps. Recent findings and key lessons learned will be discussed in this context.</p> <p><i>Speakers:</i> TBD; Jerker Tamelander, IUCN</p> <p><i>Products</i> to be launched and showcased include the following:</p> <ul style="list-style-type: none"> <li>- Managing Marine and Coastal Protected Areas: A Toolkit for South Asia</li> <li>- South Asia MCPA Information Portal</li> <li>- CORDIO Status Report 2008. Ten years after bleaching - facing the consequences of climate change in the Indian Ocean</li> <li>- GCRMN Status of Coral Reefs of the World 2008</li> </ul>
<b>12:30</b>	<p><b>Discussion: Putting tools and approaches to use</b></p> <ul style="list-style-type: none"> <li>- How can national governments apply lessons learned?</li> <li>- What practical changes are needed e.g. in terms of policies and partnerships?</li> <li>- What is the role of SACRTF? Recommendations to the SACRTF meeting?</li> <li>- Are there any actions implementable in the near-term that can bring good results?</li> </ul> <p><i>Facilitator:</i> TBD</p>
<b>13:00</b>	Meeting Close
	Lunch [sponsored by IUCN/CORALI]

## ANNEX E List of Participants

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## ANNEX F: Regional Strategy for Coral Reefs – GEER Foundation

**Regional Strategy**  
 for the  
**Institutional Strengthening & Capacity Development**  
 for the long term management of  
**Marine and Coastal Protected Areas**  
 - encompassing coral reefs-  
 in  
**South Asia**

sponsored by  
  
 South Asia Co-operative Environment Programme

prepared by  
  
 Gujarat Ecological Education and Research (GEER) Foundation  
 Gandhinagar, Gujarat.

### Background

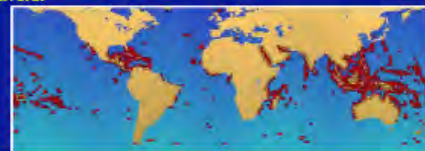
- Tiny colonial animals that secrete an exoskeleton of calcium carbonate.
- The most diverse and valuable ecosystems on earth.
- Variety of forms, like fringing reef, barrier reef, patch reef, apron reef, bank reef, ribbon reef, atoll reef and table reef.

### Coral Reefs

- Corals represent tiny animals which are colonial cnidarians that secrete an exoskeleton of calcium carbonate.
- Coral reefs are aragonite structures produced by living organisms called *Polyp*

### Coral Reefs in the world

- Coral reefs are estimated to cover 284,300 square kilometres
- Southeast Asia accounts for 32.3% of that figure, while the Pacific including Australia accounts for 40.8%.
- South Asia corals extend from Pakistan to Bangladesh around Maldives, India and Sri Lanka.
- Restricted along the coast around Bangladesh due to the release of vast quantities of freshwater from the Ganges Rivers.



### Interesting facts about Coral Reefs

- About half of the World's coastlines are in tropics and a third of tropical coastlines are made up with coral reef.
- Coral reef produces limestone at the rate of 400-2000 tons / hectare / year.
- Most biological productive ecosystem of World
- Coral reefs are found in 100 countries (mostly developing countries) in the tropical region where it is the backbone of the economy.
- The coral reef biodiversity is comparable to the biodiversity of terrestrial tropical rain forests



## Status of South Asian Reefs

### Bangladesh

St. Martin's Island (10km south of the mainland, 8km x 1.6 km) is reported to be the only coral reef area

### India

4 major coral reef areas-

- Andaman & Nicobar, Gulf of Mannar, Lakshadweep & Gulf of Kachchh

No. of species - 203

No. of Genera - 55

## Maldives

No. of species: 117

No. of Genera: 33 genera and Pillai, 1986

### Chagos Archipelago

About 200 coral species are recorded

The 5 atolls with 21,000km<sup>2</sup> of shallow waters  
Great Chagos

## Pakistan

Small colonies growing on hard substrate

Recently discovered corals

### Sri Lanka

No. of Species: 183 corals

No. of Genera: 68

## Coral Reefs of India

### Andaman & Nicobar Islands

Reef Area: About 11,939 km<sup>2</sup>

Types: Reef lagoons, Coral banks, Reef slopes and Reef flat.

No. of Species: 197 (hard corals)

No. of genera: 58

### Lakshadweep Islands

No. of Species: 95

Gulf of Mannar

No. of Species: 117

Gulf of Kachchh

No. of species: 51 (41 Hard + 10 Soft)

## Objectives of the strategy for institutional strengthening and capacity building

To bring about long term conservation of coastal and marine bio-resources in South Asia by enhancing the capacity of concerned government and non-government organizations in coastal member nations of SACEP in South Asia.

Bangladesh

India

Maldives

Pakistan

Sri Lanka

## Strategy

The strategy would include the following two components.

1. Capacity building of concerned organisations in each member country
2. Developing a communication strategy for conservation of coastal and marine resources with special emphasis on coral reefs



## Interactive Website

1. Public domain
2. Space accessible to partners
3. Announcement
4. Messages
5. Discussion boards
6. Regular updation



## 1. Capacity building of concerned organisations in each member country

- i. Identify potential institutions
- ii. Outline institutions' goals and deliverables
- iii. Assessment of existing institutional capabilities
- iv. Suggested strategy for capacity building

## 2. Developing a communication strategy for conservation of coastal and marine resources with special emphasis on coral reefs

- ✓ A special communication strategy designed for the conservation of coastal and marine resources

## Major institutional categories

1. Policy level government institutions
2. Management institutions
3. Community level organizations
4. Research and academic institutions
5. Non-government organizations

## (i) Policy level government agencies

### Expected role

- a. Policy formulation
- b. Overall direction
- c. Monitoring and control of actions
- d. Strengths and existing capabilities

### Needs

#### i. Information

- a. Management information system
- b. Monitoring information system

#### ii. Knowledge base

- a. Global and regional strategies
- b. Base line information
- c. Requirement and aspirations of different stakeholders
- d. Expert information needed for sustainable use and conservation
- e. Expert information about carrying capacities
- f. New findings
- g. Research outputs
- h. Success and failures stories
- i. Impact of anthropogenic pressures on conservation
- j. Understanding of socio-economic dependence

Contd..

*iii. Strategy for capacity building*

- a. Facilitating exchange of information and sharing of database*
- b. Orientation and awareness programmes*
- c. Exposure tours to other parts of the region*
- d. Institutional arrangements for regular workshops, seminars and other modes of information sharing*
- e. Communication and awareness through mass media*

**(ii) Management level government agencies**

**Expected roles**

- 1. Translation of policy into action*
- 2. Enforcement of law, rules and regulations*
- 3. Protection, management and conservation of MCPAs*
- 4. Generating information and database at the level PA*
- 5. Facilitating stakeholders' participation*
- 6. Conflict management*
- 7. Crisis management*
- 8. Applied research addressing management needs*
- 9. Communication and awareness generation*
- 10. Monitoring and evaluation*

Contd..

**Assessment of existing capabilities vis-à-vis the expected roles**

- i. Assessment of existing human resource in terms of
  - (a) Organizational structure and functions vis-à-vis roles and responsibilities
    - i. Manpower
    - ii. Skills
- ii. Existing Infrastructure and equipments
- iii. Existing networking capabilities
- iv. Strengths of the agency
- v. Experience and expertise present
  - a. Special areas of achievements and effectiveness
- vi. Conflict management capability
- vii. Crisis management capabilities .

**Identification of areas needing capability enhancement**

1. Areas and personnel needing training
2. Need for infrastructure, equipments etc.

**Strategy for enhancing the required capabilities**

- (i) Identifying capable institutions for imparting training
- (ii) Institutional mechanism for capacity enhancement
  - a. Manpower planning and provision of required manpower
  - b. Training and skill up-gradation programmes
  - c. Trainers for training programme
  - d. Provision of infrastructure, implements etc.
  - e. Skilled human resource for imparting training
  - f. Institutional arrangements for regular workshops, seminars and other modes of information sharing
  - g. Facilitating exchange of information and sharing of database
  - h. Orientation and awareness programmes
  - i. Exposure tours to other parts of the region
  - g. Communication and awareness through mass media

**(III) Community level organizations**

**Expected role**

- i. To strengthen management*
- ii. To provide local and traditional wisdom*
- iii. To lend continuity, to management practices due to their permanent presence*
- iv. To facilitate sustainable use of marine and coastal resources*
- v. To provide support in crises detection and management*
- vi. To provide support in surveillance and vigilance*
- vii. To facilitate benefit sharing among stakeholders as per policy and law*
- viii. Conflict resolution*

**Assessment of existing capabilities vis-à-vis the expected roles**

- i. Assessment of existing human resource in terms of
  - (b) Organizational structure and functions vis-à-vis roles and responsibilities
    - i. Manpower
    - ii. Skills
- ii. Existing Infrastructure and equipments
- iii. Existing networking capabilities
- iv. Strengths of the organization
- v. Experience and expertise present
- vi. Special areas of achievements and effectiveness
- vii. Organizational inherent capability of conflict management
- viii. Quality and strengths of consultative processes

### Identification of areas needing capability enhancement

1. Areas and personnel needing training
2. Need for infrastructure, equipments etc.

#### Strategy for enhancing the required capabilities

- a. Identifying capable institutions for imparting training
- b. Institutional mechanism for capacity enhancement
  - i. Manpower planning and provision of required manpower
  - ii. Training and skill up-gradation programmes
  - iii. Trainers for training programme
  - iv. Provision of infrastructure, implements etc.
  - v. Skilled human resource for imparting training
  - vi. Institutional arrangements for regular workshops, seminars and other modes of information sharing
  - vii. Facilitating exchange of information and sharing of database
  - viii. Orientation and awareness programmes
  - ix. Exposure tours to areas with success stories
  - x. Communication and awareness through mass media

### (IV) Research and academic Institutions

#### Expected role

- (i) To generate information base
- (ii) To carry out research and provide research output
- (iii) To identify research needs in consultation with managers and other stakeholders
- (iv) Institutional arrangement for information dissemination for policy makers, managers, communities and the society at large.
- (v) Bio-physical monitoring
- (vi) Networking with other institutes for information sharing and avoiding duplication of research
- (vii) To provide research based inputs for developing communication strategy on key issues
- (viii) To facilitate training and Capacity building of managers based on research
- (ix) To facilitate management action plans

### Assessment of existing capabilities vis-à-vis the expected roles

#### I. Assessment of existing human resource in terms of

##### Organizational structure and functions vis-à-vis roles and responsibilities

- a. Manpower
  - b. Skills
- ii. Existing Infrastructure and equipments
  - iii. Existing networking capabilities
  - iv. Strengths of the agency
  - v. Experience and expertise present
    - a. Special areas of achievements and effectiveness
  - vi. Identification of areas needing capability enhancement
  - vii. 1. Areas and personnel needing training  
viii. 2. Need for infrastructure, equipments etc.

#### Strategy for enhancing the required capabilities

- a. Identifying capable institutions for imparting training
- b. Institutional mechanism for capacity enhancement
  - i. Manpower planning and provision of required manpower
  - ii. Training and skill up-gradation programmes
  - iii. Provision of infrastructure, implements etc.
  - iv. Institutional arrangements for regular workshops, seminars and other modes of information sharing
  - v. Facilitating exchange of information and sharing of database
  - vi. Improving the existing networking capabilities

### (V) Non-government organizations

#### Expected role

- (i) To work as an interface between management and community
- (ii) To mobilize community to participate in management and conservation efforts
- (iii) To facilitate awareness generation
- (iv) To facilitate local level planning and action involving local communities
- (v) To facilitate capacity building of stakeholders
- (vi) To facilitate monitoring and evaluation
- (vii) To help communication documentation, networking

#### Strategy for involvement of NGOs in the capacity building programmes

- a. Identification of capable NGOs having required manpower and skills to perform the jobs allotted to them
- b. Institutional mechanism for long term involvement of identified NGOs in the capacity building programmes
- c. Institutional arrangements for regular consultative process with NGOs
- d. Orientation and awareness programmes
- e. Exposure tours to areas with success stories
- f. Involvement of NGOs in developing communication and awareness programmes for different target groups

#### Institutional mechanism for implementing the regional strategy

1. Discussion of the strategy and consultations with all the 5 SACEP countries (Bangladesh, India, Maldives, Pakistan and Sri Lanka) having coasts and finalization of the strategy after incorporating suggestions which have been mutually agreed upon.
2. Consent will be sought by SACEP from all the 5 coastal member countries regarding implementation of the strategy.
3. Each country to identify and appoint a national level nodal agency / nodal authority to coordinate with the regional agency i.e. SACEP, nodal agencies / nodal authorities of other member countries and various agencies in their respective countries.
4. All nodal agencies to prepare their country level action plans through a process of mutual consultations within their respective countries and with SACEP.
5. SACEP to prepare regional action plan based on the national action plans received from various countries through a process of general consultations. The regional action plan to have regional programmes as well as national level programmes and activities.
6. SACEP to facilitate implementation through identified regional level agencies with respect to regional level programmes.
7. Various nodal agencies to facilitate implementation in consultation with SACEP with respect to national level programmes.



### Funding mechanism

1. SACEP to facilitate fund raising through
  - a. Various international donor agencies such as IUCN, UNEP, ICRAN etc.
  - b. National governments which are members of SACEP
  - c. Overall coordination

The overall coordination will be done by a special task force proposed to be constituted by SACEP. The overall coordination may also be entrusted to the South Asian Coral Reef Task Force (SACRTF). The coordinating task force will also oversee the allocation and utilization of funds

### Monitoring and evaluation

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

### Regional Communication Strategy

- South Asia

sponsored by



South Asia Co-operative Environment Programme

prepared by



Gujarat Ecological Education and Research (GEER) Foundation  
Gandhinagar, Gujarat.

### Need for communication

- 25% of the world's reefs have already vanished or severely damaged and 30% is degraded and threatened.
- **Major threats:**
  - Over-exploitation of resources for subsistence and commercial fishing,
  - Destructive fishing practices destroying the habitat
  - Increasing coastal populations,
  - Poor land use practices and runoff of pollutants, sediments and nutrients
  - Disease outbreaks this ecosystem.
  - Poor water quality and pollution
  - Coral bleaching
  - Degradation of coastal mangrove forests

Contd..

- **Global warming**
  - to over-fishing
  - to contaminants in the water

- human actions are the direct and indirect cause of coral reef mortality.

It is necessary to educate and sensitize people viz. all the stakeholders  
Communication package right from data generation i.e. research to the dissemination of information to people and policy makers is, therefore, necessary

### Need for communication strategy

- Multiple stakeholders, therefore, proper and effective communication necessary
- It is necessary that these areas are managed more scientifically. Therefore, exchanged of technical knowledge and traditional wisdom is key to successful conservation
- Integration of various stakeholders in the management is essential
- Multiple stakeholders with diverse stakes increasing the complexity of management demands a comprehensive and focused communication strategy for
  - coordinating all the stakeholders
  - involving them in the management
- Most of the coral reefs are isolated from each other demanding exchange of area specific experiences and knowledge

### General objectives of the overall communication strategy

- To create mass awareness about the significance of conserving marine and coastal bio-resources particularly coral reefs.
- To generate public awareness within member countries and others about the present programme.
- To disseminate understanding about regional conservation visions, policies, conventions, obligations etc. and generate understanding about national policies, rules and regulations to various stakeholders
- To develop an interface between managers, researchers and stakeholders and share thinking, views, practices and experiences to inspire actions at local, national and trans-boundary level and their short term and long term impacts on conservation the natural adversities.

Contd..

- To institutionalize a system of periodic and regular reporting and communication pathways and information storage for vertical and horizontal exchange in the form of an interactive network system to be used by partner organizations involved in the implementation of the capacity building programme.
- To institutionalize an interactive communication network open for free exchange of ideas and information for the society at large.
- To facilitate communication campaigns at local level, national and regional levels using various mediums.
- To develop a strong network for early warning system for understanding and preparing for the natural adversities.

## Major components

Communication System for Partner Organizations (CSPO) for vertical and horizontal exchange of information, guidance, direction, suggestions etc.

Communication System for Generating Awareness (CSGA) for creating general sensitivity and motivation.

## COMMUNICATION COMPONENT-I

### Communication System for Partner Organizations (CSPO)

- *The communication system for partner organizations (CSPO) would cater to regular flow of information required for efficient management of marine bio-resources and coral reefs.*

## Specific objectives of CSPO

- To disseminate understanding about regional conservation visions, policies, conventions, obligations etc. and generate understanding about national policies, rules and regulations to various stakeholders
- To develop an interface between managers, researchers and stakeholders and share thinking, views, practices and experiences to inspire actions at local, national and trans-boundary level and their short term and long term impacts on conservation
- To institutionalize a system of periodic and regular reporting and communication pathways and information storage for vertical and horizontal exchange in the form of an interactive network system to be used by partner organizations involved in the implementation of the capacity building programme.
- To conceptualize, plan, implement and monitor communication campaigns at local level, national and regional levels using various mediums.
- To develop a strong network for early warning system for understanding and preparing for the natural adversities.

## Target groups of CSPO

- The regional coordinating agency at SACEP
- National governments
- National nodal agencies
- Managers
- Researchers
- Reef dependent local communities- fishermen
- Reef dependent industries including tourism industry

## The structure of communication and communication pathways for CSPO





## Communication pathways for CSPO

1. The Regional Coordinating Agency at SACEP
2. The National Government Agency
3. The Country Nodal Agency (CNA)
4. The MCPA Units
5. Research Organizations
6. Non-Government Organizations
7. The reef dependent local communities
8. The reef dependent stakeholders such as industry and tourism

## Target Groups

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

## Content of communication

- CSPO will have two modules as mentioned below.
  - ✓ **Module-1**  
*Conservation Module (CM)*
  - ✓ **Module-2**  
*Capacity Building Module (CBM)*

## Module-1 Conservation Module (CM)

- Address the communication requirement for conservation of marine bio-resources and coral reefs.
- **Two types of information**
- Constant / semi-permanent information
- Periodically gathered and updated information

## Module-1 Type-1 Constant information

- ✓ 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 habitat and their relations with the coral reefs.
- ✓ Previous status and the present conditions of the coral reefs.
- ✓ Legal and policy framework.
- ✓ Ecological status of each ecosystems
  - o Conservation status- Protected Area, Biosphere Reserve etc.
  - o Species diversity and abundance of species
  - o Endemic and globally threatened species
  - o Status of reef fish
  - o Unique features of reefs and MCPAs
  - o Critical habitats in and around MCPAs
  - o Landscape influencing the MCPAs and reefs

*Contd..*

- ✓ Socio-economic values
  - o Economic values and socio-economic dependence of local communities.
  - o Cultural and traditional values
  - o Industrial development and dependence
- ✓ Major anthropogenic impacts
  - o Human population- direct and indirect dependence- within 10 km of the boundaries of PAs
  - o Demographic profile of the human population
  - o Potential sources and impact of pollution
  - o Commercial utilization of marine bio-resources
  - o Eco-tourism- status, potential and major issues

Collected by CNA for all the MCPAs

CNA will be helped by MCPA units, research organizations, NGOs, communities, stakeholders, government agencies etc.

### Communication pathway

Information will be generated by various MCPA units and sent to the CNA and the national agencies (optional) once in every 5 years.

After compilation and scrutiny CNA will transmit this information to the national government agency and the regional coordinating agency at SACEP.

### Frequency of information

Information will be updated once in every 5 years.

### Language

Developed, stored and dissemination in all the three languages viz. English, national language of the respective country and the local language.

### Accessibility of the information

Accessible to all the network partners and on the public domain

Partner agencies jointly update it every five years.

### Module-1- Type-2 The periodic information

- Plan of action for the six months and progress made during the period
- **Bio-physical assessment**
  - Details of conservation works carried out such as afforestation, coral rehabilitation, management of invasive species etc.
- **Protection measures taken and their impacts**
  - Number and types of offences registered during the past six months
- **Details of utilization of bio-resources from MCPAs such as fish catch etc.**
  - 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**

*Contd..*

- New research findings, if any
- **Progress in community participation in management**
- Progress of awareness programmes and their impacts
- **Details of training programmes for different types of stakeholders and organizations**
  - Details of seminars, symposiums, exposure tours, workshops undertaken during the past six months.
- **Details of infrastructure development such as procurement of new vehicles, equipments etc. and their use**
- Financial resources mobilized to various government / non-government agencies
- **Proposed plan of action for the next six months**

### Communication pathway

• The information will be generated by various MCPA units and sent to the CNA and National agencies (optional)- every six months.

• The CNA would transmit the information after compilation and scrutiny to the national government agency and the regional coordinating agency at SACEP.

### Frequency of information

- Information will be updated once in six months
- CNA to develop a uniform format

### Language

• Developed, stored and dissemination in all the three languages viz. English, national language of the respective country and the local language.

### Accessibility of the information

- Accessible to :
  - SACEP, the national government agencies, the CNA and the MCPAs

**Module-2 Capacity Building Module (CBM)  
CBM plan- annual and 5 yearly to cover**

- ✓ Organizations belonging to different categories to be covered by capacity building initiatives
  - List of MCPA units
  - List of research organizations
  - List of NGOs
  - List of marine bio-resources dependent communities
- ✓ Category and number of individuals belonging to each organization
- ✓ Training needs for each category of individuals
- ✓ List of capable training organizations capable of imparting the training for each category
- ✓ Desired frequency and duration of each training
- ✓ The level of training desired for each category of people.
  - International
  - Regional
  - National
  - PA level agency for the training programme

*Contd..*

- ✓ Need for information dissemination through seminar, workshops, exposure tours etc. at various levels
  - International
  - Regional
  - National
  - PA level
- ✓ Assessed need for infrastructure types such as
  - Communication equipments such as walkie talkies etc.
  - Computers with peripherals and internet facilities
  - Vehicles
  - Equipments
  - others
- ✓ Annual financial resources
- ✓ Potential funding agencies and financial resources available from each of them
- ✓ Implementing / coordinating agency for the training programme

**Module-2 CBM: Implementation and monitoring of capacity building plan (Annual and 5 years)**

- ✓ The communication under this module would be initiated by the various MCPAs

Name of the MCPA Unit : \_\_\_\_\_  
 Area / State : \_\_\_\_\_  
 Country : \_\_\_\_\_

**Format-1**

**A. Physical progress**

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

**Format-2**

**B. Financial progress**

(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 (5 - 8)
	Planned		Funds actually available	Planned		Funds utilized	
	Source	Funds		Activity	Funds		
1	2	3	4	5	7	8	9
							±
							±
							±

**Format-3**

**C. Infrastructure**

(Funds in USD)

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

**Communication pathway**

- The information will be generated by various MCPA units and sent to the CNA
- The CNA would submit to the national government agency and the regional coordinating agency at SACEP.

#### Frequency of information

- Information will be updated once in six months
- Develop uniform format

#### Language

- English,
- National language
- Local language.

#### Accessibility of the information

- Accessible to :
  - The regional coordinating agency at SACEP
  - The national government agencies,
  - The CNA and
  - The MCPAs

\*Above agencies will update information every 6 months.

## COMMUNICATION COMPONENT- II

### Communication System for Generating Awareness (CSGA)

#### Specific objectives of CSGA

- To create mass awareness about the significance of conserving marine and coastal bio-resources particularly coral reefs.
- To generate public awareness within member countries and others about the present programme.
- To disseminate understanding about regional conservation visions, policies, conventions, obligations etc. and generate understanding about national policies, rules and regulations to various stakeholders
- To institutionalize an interactive communication network open for free exchange of ideas and information for the society at large.
- To facilitate communication campaigns at local level, national and regional levels using various mediums.

#### Target groups of CSGA

The CSGA will cover:

- Policy makers
- Reef dependent local communities- fishermen
- Reef dependent industries including tourism industry
- School/ college/ university students
- Teachers
- Funding agencies
- Society at large

#### Suggested communication modes

The modes of communication would depend upon:

- Target group
- Coverage
- Content and form of the message

#### Communication Plan

Plan for CSGA will be prepared at three levels:

1. The Regional Coordinating Agency (RCA) at SACEP
2. The Country Nodal Agency (CNA) for different countries
3. MCPA units



**Communication plan for CSGA**  
**Communication plan to include:**

1. Target group or set of target groups
2. Type of communication methods used
  - a. Mass communication at regional level, country level or MCPA level. They would include:
    - i. Television programme
    - ii. Radio programmes
    - iii. Use of print media
  - b. Locale specific communication at MCPA levels will address to local issues at local levels.  
**Use of local language, traditional communication channels, local TV, radio channels, local print media etc.**
    - i. Local language television programme
    - ii. Local language radio programmes
    - iii. Use of local language print media
    - iv. Eco-fairs

*Contd..*

- v. Institutionalization of eco-clubs of students, teachers, citizens etc.
  - vi. Street plays, rallies, celebrations of important days / years etc.
  - vii. Video films- animation, quickies, short messages etc.
  - viii. Exhibitions
  - ix. Interpretation centres
3. Dissemination of research and technical information to the society and the local community
  - i. Periodicals and newsletters in local language
  - ii. Local language television programme
  - iii. Local language radio programmes
  - iv. Use of local language print media

**Implementing agency**

1. The Regional Coordinating Agency (RCA) at SACEP
2. The Country Nodal Agency (CNA) for different countries
3. MCPA units
4. NGOs

**Major implementation by various MCPA units**

**Various target groups and communication strategy**

Target group	Method	Language
Policy makers	i. Seminars	English, National & Local
	ii. Workshops	
	iii. TV Programmes	
	iv. Radio programmes	
	v. Special day celebrations	
	vi. Posters & holdings	
	vii. Print media	
Reef dependent local communities- fishermen	i. Local language television programme	Local
	ii. Local language radio programmes	
	iii. Use of local language print media	
	iv. Eco-fairs	
	v. Institutionalization of eco-clubs of students, teachers, citizens etc.	
	vi. Street plays, rallies, celebrations of important days / years etc.	

*Contd..*

Target group	Method	Language
Reef dependent local communities- fishermen	vii. Video films- animation, quickies, short messages etc. viii. Exhibitions ix. Interpretation centres	Local
Reef dependent industries including tourism industry	All methods mentioned above	English, national and local
School/ college/ university students	All methods mentioned above	English, national and local
Teachers	All methods mentioned above	English, National & Local
Funding agencies	All methods mentioned above	English, national
Society at large	All methods mentioned above	English, National & Local

**Institutional mechanism for implementing the regional strategy**

1. Discussion of the strategy and consultations with all the 5 SACEP countries viz. Bangladesh, India, Maldives, Pakistan and Sri Lanka
2. Consent will be sought by SACEP from all the 5 coastal member countries regarding implementation of the strategy.
3. Each country to identify and appoint a national level nodal agency / nodal authority to be known as Country Nodal Agency (CNA)
4. All CNAs to prepare their country level action plans through a process of mutual consultations within their respective countries and with SACEP (5 yr. plan and annual plan).
5. SACEP to prepare regional action plan (5 yr. plan and annual plan) based on the National Action Plans
6. SACEP to facilitate implementation through identified regional level agencies
7. Various nodal agencies to facilitate implementation in consultation with SACEP with respect to national level programmes.

### Funding mechanism

1. SACEP to facilitate fund raising through
  - i. Various international donor agencies such as IUCN, UNEP, ICRAN etc.
  - ii. National governments which are members of SACEP

### Overall coordination

SACEP through a special task force  
*South Asian Coral Reef Task Force*

*(SACRTF) - suggested*

which will also oversee the allocation  
and utilization of funds

### Monitoring and evaluation

- i. Nodal agencies will monitor and evaluate the programme in consultation with SACEP.
- ii. Such monitoring will be done annually
- iii. Suggestions with future improvements will be presented by the nodal agencies in an annual workshop

### Costs

Component	SACEP Proposal	
	USD	INR
Institutional strengthening	6000	288000
Regional communication strategy	3000	144000
<b>Total</b>	<b>9000</b>	<b>432000</b>

**It would be difficult to visit all the 5 countries to collect first hand information and incorporate area specific needs  
The strategy would cover coral reef areas only**

**Thanks**

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