



Ministry of Environment,
Forest and Climate Change,
Government of India



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



On behalf of:



of the Federal Republic of Germany

Curriculum on Coastal and Marine Biodiversity and Protected Area Management

Module 8 Communicating Coastal and Marine Biodiversity Conservation and Management Issues

For Field-Level MPA Managers



Imprint

Training Resource Material:

Coastal and Marine Biodiversity and Protected Area Management for Field-Level MPA Managers

Module 1: An Introduction to Coastal and Marine Biodiversity and Ecosystem Services
Module 2: Coastal and Marine Biodiversity and Ecosystems Services in the Overall Environment and Development Context
Module 3: Mainstreaming Coastal and Marine Biodiversity into Overall Development and Environmental Planning
Module 4: Coastal and Marine Protected Areas and Sustainable Fisheries Management
Module 5: Governance, Law and Policies for Managing Coastal and Marine Ecosystems, Biodiversity and Protected Areas
Module 6: Assessment and Monitoring of Coastal and Marine Biodiversity and Relevant Issues
Module 7: Effective Management Planning of Coastal and Marine Protected Areas
Module 8: Communicating Coastal and Marine Biodiversity Conservation and Management Issues

ISBN 978-81-933282-1-7

October 2015

Published by:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Indo-German Biodiversity Programme
A-2/18, Safdarjung Enclave
New Delhi 110029, India
T +91-11-4949 5353
E biodiv.india@giz.de
W <http://www.indo-germanbiodiversity.com>

Wildlife Institute of India (WII)

P.O. Box 18, Chandrabani
Dehradun 248001
Uttarakhand, India
T +91-135-2640 910
E dwii@wii.gov.in
W www.wii.gov.in

GIZ is a German government-owned not-for-profit enterprise supporting sustainable development.

This training resource material has been developed under the Human Capacity Development component of the project 'Conservation and Sustainable Management of Existing and Potential Coastal and Marine Protected Areas (CMPA)', under the Indo-German Biodiversity Programme, in partnership with the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India. The CMPA Project has been commissioned by the German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB) with the funds provided under the International Climate Initiative (IKI). The CMPA Project is being implemented in selected coastal states in India and focuses on capacity development of the key stakeholders in the forest, fisheries and media sectors.

With guidance from:

Mr. Edgar Endrukaitis, Director, Indo-German Biodiversity Programme, GIZ India
Dr. V B Mathur, Director, Wildlife Institute of India
Dr. J. Michael Vakily, Team Leader, CMPA Project, Indo-German Biodiversity Programme, GIZ India

Compiled and edited by:

Dr. Neeraj Khera, Senior Advisor, Indo-German Biodiversity Programme, GIZ India
Dr. K. Sivakumar, Scientist E, Wildlife Institute of India
Dr. Sarang Kulkarni, Marine Biologist, Indian Institute of Scuba Diving and Aquatic Sports (IISDA)

Text and editing contributions from:

Dr. J.A. Johnson, Scientist D, Wildlife Institute of India; Dr. Ramesh Chinnasamy, Scientist C, Wildlife Institute of India; Dr. D. Adhavan, Project Associate, Wildlife Institute of India; Dr. Pradeep Mehta, Research and Programme Manager, Earthwatch Institute India; Mr. Luke Mendes, Writer, Filmmaker and Media Trainer, Mumbai; Mr. S. Gopikrishna Warriar, Regional Environment Manager, PANOS South Asia [Module 8]; Mr. Darryl D'Monte, Chairperson, Forum of Environmental Journalists of India (FEJI) [Module 8]; Dr. Dirk Asendorpf, Journalist and Media Trainer, Germany [Module 8]; Ms Atiya Anis, Communications Expert, Indo-German Biodiversity Programme, GIZ India; Mr. Sanjay Dave, Charkha and Mr. Bharat Patel, MASS Gujarat [case studies of turtle rescue and community plantation of mangroves]; Dr. R. Ramesh and team, NCSM [ecosystem services, differences between terrestrial and coastal ecosystems, GIS]; Ms Helina Jolly [economic valuation methods and examples]; Ms Janki Teli [case study of Whale Shark];

Designed by:

Aspire Design, New Delhi

Photos by:

Neeraj Khera, unless credited otherwise.

Disclaimer:

This training resource material is work in progress. The material in this publication is meant to be used for educational purposes only. It has been compiled, developed and edited by the named authors, contributors and editors and does not necessarily reflect the views of the GIZ or its partners. The master text has been created and compiled from documented and published references/resources, as cited in the text. The master text has subsequently been edited and customized to develop training material for field-level MPA managers, senior MPA managers, IFS probationers, media students and trainers. While due care has been taken in preparing this document, the publisher, editors and text contributors assume no responsibility for the authenticity, correctness, sufficiency or completeness of such information or examples. Any geographical maps are for informational purposes only and do not constitute recognition of international boundaries or regions; publishers make no claims concerning the accuracy of the maps nor assumes any liability resulting from the use of the information therein. Any feedback and suggestions for improving this training material are welcome.

Suggested Citation:

Neeraj Khera, K. Sivakumar and Sarang Kulkarni (Comp.). 2015. Training Resource Material on Coastal and Marine Biodiversity and Protected Area Management for field-level MPA managers. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) India and the Wildlife Institute of India. ISBN 978-81-933282-1-7. Pp 604 (set of 8 modules).

Module 8

Communicating Coastal and Marine Biodiversity Conservation and Management Issues

For Field-Level MPA Managers

Key contributory authors for this module:

Mr. S. Gopikrishna Warriar, Regional Environment Manager, PANOS South Asia;
Mr. Darryl D'Monte, Chairperson, Forum of Environmental Journalists of India (FEJI);
Dr. Dirk Asendorpf, Journalist and Media Trainer, Germany

Summary

This module will help field-level MPA managers understand how media looks at coastal and marine conservation issues. Since conservation is not in the media priority and MPAs come into news only when an event happens, the module will help managers to gain knowledge and skills for effectively engaging media on conservation issues. The module will introduce the different tools for media relations, their strengths and limitations. It will also discuss how to use these tools during a crisis communication situation.

Table of contents

Acronyms	v
8.1 Why we do not hear much about the coasts from the media?	3
8.2 The end of the horizon: Why the media is more interested with land than with the sea and the coasts?	5
8.3 Why is media important?	9
8.4 Media is growing in India	11
8.5 Limitations with the media....and implications for the MPA managers:	15
8.5.1 What are the limitations?	15
8.5.2 What media wants and covers	17
8.5.2.1 Understanding reporters	17
8.5.2.2 Understanding the editors	18
8.6 The coastal and marine stories that the media usually covers	21
8.6.1 Connecting the dots with reference to trade	21
8.6.2 Fishworkers conflicts	22
8.6.3 CRZ related issues	22
8.6.4 Coastal tourism	23
8.7 How to get media attention on coastal issues?	25
8.7.1 The concept of sustainability	25
8.7.2 Ecosystem Services: provisioning, regulating, supporting and cultural ecosystem services	26
8.8 Strategic communication for media relations	29
8.8.1 Four principles:	29
8.9 Conventional and time-tested tools for engaging with the media	33
8.9.1 Press release or press statement	33
8.9.2 Press meeting	34
8.9.3 Media expeditions	35
8.9.4 Media workshop	36
8.9.5 Media fellowship	36
8.10 Linking to the world with online media	39
8.10.1 Overview of social media platforms:	39
8.10.2 How social media can help the managers in conserving their sites?	40
8.10.3 Social media and International conservation organizations:	42
Main sources	48
Further Resources	48

Acronyms

CBD	Convention on Biological Diversity
CMS	Convention on Migratory Species
EIA	Environmental Impact Assessment
EMP	Environment Management Plan
FAO	Food and Agriculture Organization
GCBA	Generational cost benefit analysis
NBAP	National Biodiversity Action Plan
NEP	National Environment Policy
SEA	Strategic Environmental Assessment
SLEIAA	State Level Environmental Impact Assessment Authority



Learning outcomes

After completing this module, the participants are able to:

- analyse the reason for less coverage of coastal and marine biodiversity issues in the popular media
- communicate their ideas and concerns on technical issues on coastal and marine biodiversity and MPA management in simple language
- choose the right communication methods to communicate with different sectors and stakeholders

Key messages

- A lot more needs to be reported and communicated to place the conservation issues on priority among decision-makers on one hand, and to make coastal and marine conservation a popular and common topic among the citizens, students, coastal communities and other key stakeholders.
- Only media has the potential of taking the message on conservation of coastal and marine biodiversity to the public.
- Media is a key stakeholder of the conservation movement, its support is pivotal for saving the biological diversity. However, many a times it does not work the way it should for the lack of awareness among the media professional and for the inabilities of the protected area managers to engage with media in a more proactive way.
- Knowing how and why people value the natural environment can help environmental managers manage their sites more effectively. At a more general level, the values that people place on nature affect which types of habitats and species are deemed important to conserve. This, in turn, affects where and when conservation takes place.
- Social media can provide great insights into how people interact with nature—most people enjoy the outdoors with a camera and often share their photos on networking sites. Websites like Flickr contain millions of photographs of natural spaces that people have taken and chosen to make publicly available. Importantly, many of these photographs are “geo-tagged” (i.e., the location where the photograph was taken is recorded). The photos visitors take and share, then, can provide valuable information for researchers and conservationists.
- Trust and communication bridges have to be built with journalists. This will help strengthen journalists' understanding of the importance of the MPAs and also help strengthen communication during crisis situations.



8.1 Why we do not hear much about the coasts from the media?

If you pick up a newspaper, any daily newspaper that comes home, and then if you check the number of news items that feature the sea or the coast, you may not find many. You would probably first turn the pages first casually, then frantically to look for anything that has remotely, even a snippet of news, about marine issues.


Of course, there would be days when this is not true. Say, when a super-cyclone claims hundreds of lives, does irreparable damage, there is a tsunami alert put out by an international agency, an oil slick that has thrown up dead whales on the coast.

That means that whenever there is an 'event', the media does its job of reporting basic facts and alerts, details of casualties, arrangements (or lack of it) made by the administration to safeguard people and property and much later, probably a follow-up or two of the state of the region on its way to recovery. But by and large, deeper concerns related to the coastal health of one's own state or country do not figure in the media as often as they ought to be.

How then does one analyse this virtual blank in media coverage of the coastal and marine conservation issues? Does it mean that marine biodiversity issues, conflicts, diminishing of species are not relevant to city or non-coastal area dwellers? Or that rising sea levels or the increasing temperature do not affect those of us who do not live by the sea or live close enough to be impacted by the changing patterns?

The answer is much more layered than a simple 'no'. This Module shall attempt to go deeper and break down some of those reasons in the Indian media scenario.





8.2 The end of the horizon: Why the media is more interested with land than with the sea and the coasts?

Does the media love land more than the sea? Not necessarily. Does the media cover land issues more than sea issues? A resounding 'yes'.

To understand the gap between the love for the sea versus the actual coverage of matters pertaining to the sea, it is essential to go back to where it all began for the Indian media.

The earliest form of journalism in the Indian context was the newspaper, and it had a cause attached to it: The freedom struggle of the Indians against the British rulers.

Almost till the middle of the 20th century, the print media therefore had only one mandate. This was to aid the struggle for independence of India. Any other subject that needed the attention of the then-administration or the people was clearly given a secondary treatment in the spaces within a newspaper.

The onset of television in the late 1970s, cable TV in the 1990s after the Gulf war, and private FM radio in the early 2000s did not change it much as far as coverage of the coast is concerned.

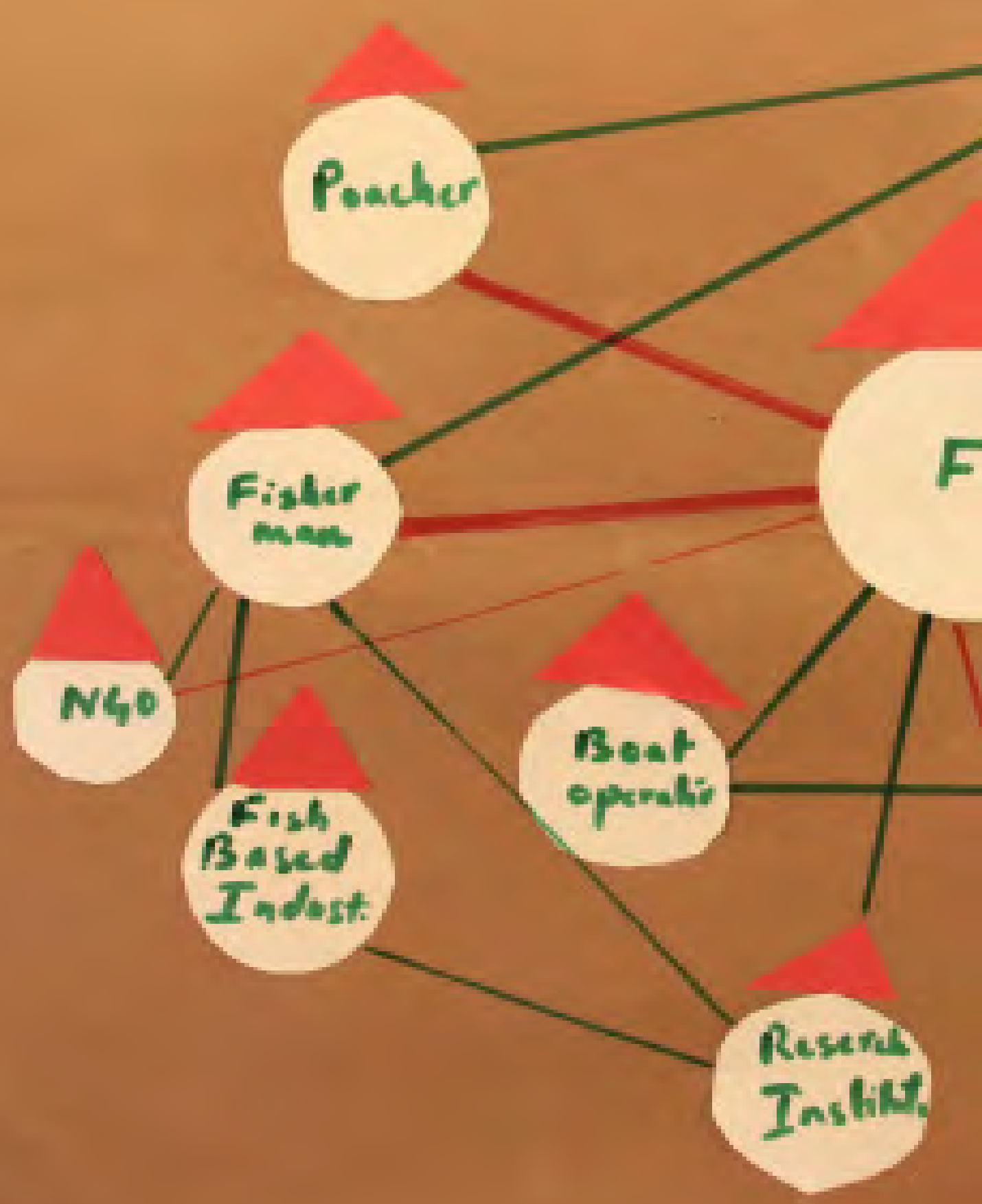
Besides, there is another crucial factor: The issue of lack of access to authentic information regarding marine issues. It's not an area easily understood by journalists, especially those in the frontline of reporting in the coastal areas. Often, these journalists are only stringers, paid per article and not on the roll of a media house which would have given them the credibility, wherewithal and free access to government authorities, marine experts and online resources on the matters.

Certain niche magazines – and of late television channels too - have done a stellar job in reporting even in non-catastrophic times about marine species, day to day conflicts faced by fishing communities, changing trends in fishing and impact say of deep sea trawling besides coastal erosion leading to depletion of beaches etc. One prime example was NDTV's 'Save India's coasts' campaign, in which a team from the channel travelled across the coast for six weeks and reported about the issues and problems being faced by the coasts.

But a lot more needs to be reported to save and conserve the marine world in every which way. Journalism needs a sea-change in attitude towards coastal issues and its coverage.



MAHATMA GANDHI M

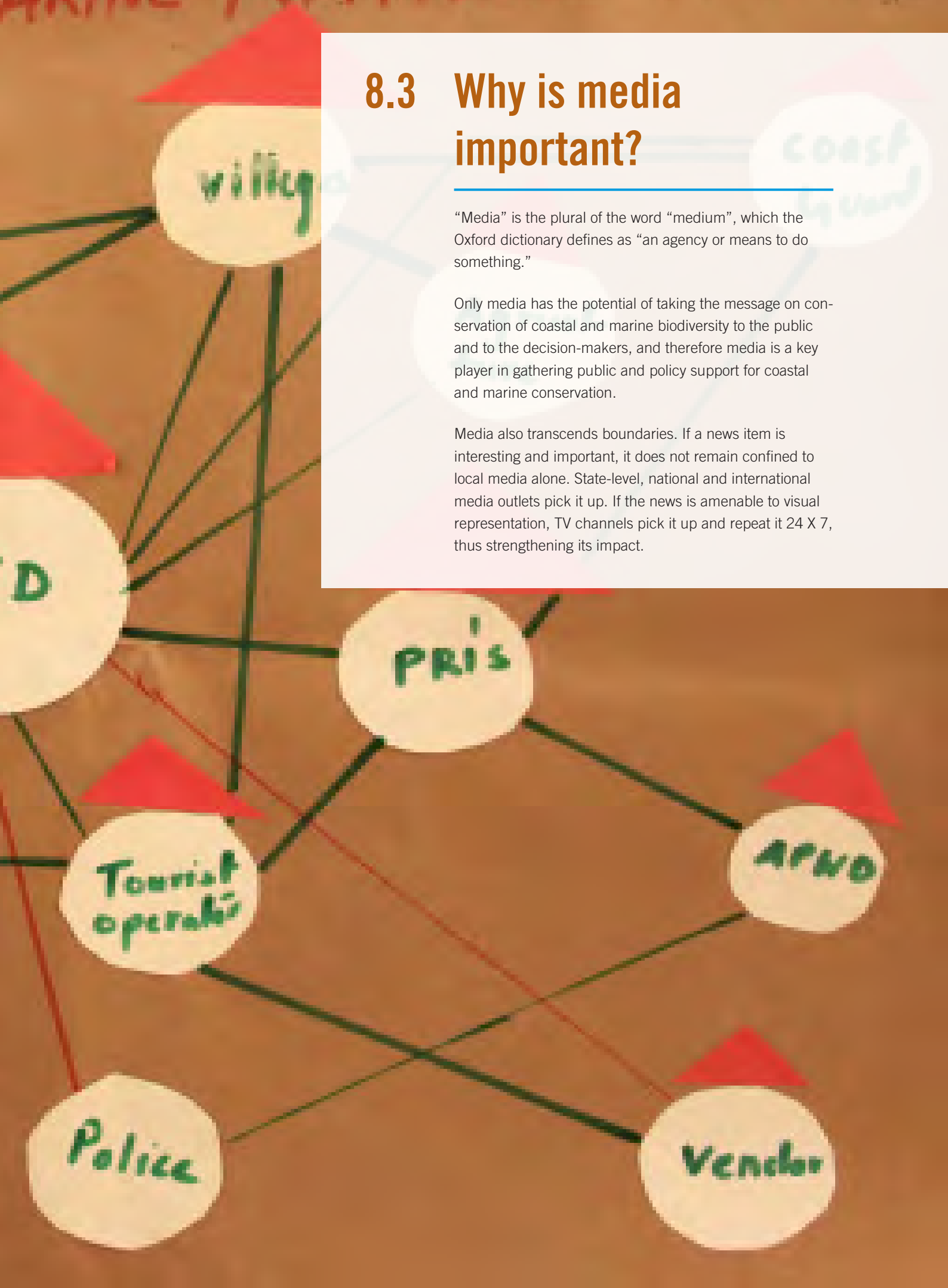


8.3 Why is media important?

“Media” is the plural of the word “medium”, which the Oxford dictionary defines as “an agency or means to do something.”

Only media has the potential of taking the message on conservation of coastal and marine biodiversity to the public and to the decision-makers, and therefore media is a key player in gathering public and policy support for coastal and marine conservation.

Media also transcends boundaries. If a news item is interesting and important, it does not remain confined to local media alone. State-level, national and international media outlets pick it up. If the news is amenable to visual representation, TV channels pick it up and repeat it 24 X 7, thus strengthening its impact.





8.4 Media is growing in India

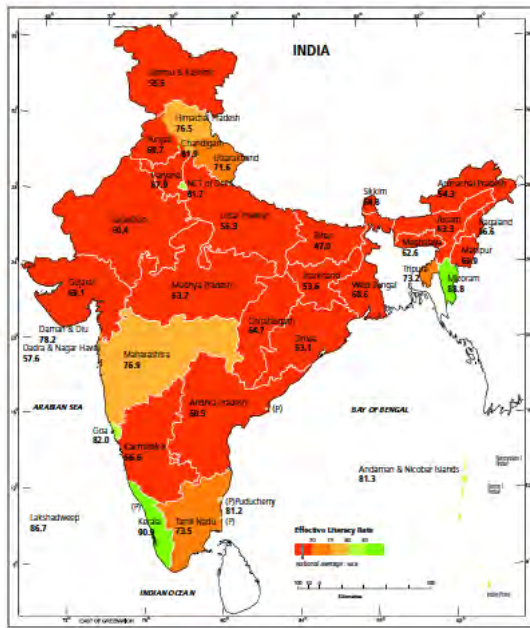
The media has been growing in importance in the recent years. According to the Indian Readership Survey¹ at the end of 2012, the print media registered a cumulative annual growth rate of 0.8%, TV of 5.2%, cable and satellite of 8.9%, radio of 1.9%, cinema of 11.6% and internet of 24.2%. There has been an overall growth in media's reach in the recent years in India.

	2012 Q2	2012 Q3	2012 Q4	% CAGR (2012 Q2-2012 Q4)
Literacy	649715	656259	661772	3.7
Any Media	647036	653824	659844	4.0
Press	352004	353338	353409	0.8
TV	563435	571426	578011	5.2
C&S	488642	499437	509821	8.9
Radio	158165	159820	159699	1.9
Cinema	79258	81406	83724	11.6
Internet	39944	42322	44521	24.2

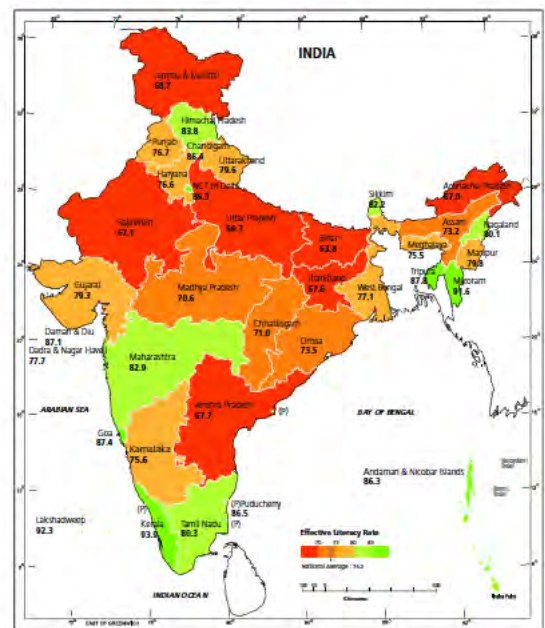
Indian Readership Survey report for the fourth quarter of 2012.

¹ The IRS topline figures for 2012 Q4 can be seen at <http://mruc.net/sites/default/files/IRS%202012%20Q4%20Topline%20Findings.pdf>

Effective Literacy Rate, 2001 (States/Union Territories)



Effective Literacy Rate, 2011 (States/Union Territories)



The most important factor for this is the growth in literacy in the country. Census of India data from 2001 and 2011, show an increase in literacy in many states, especially those in the middle of the country.²

Indian Readership Survey by Media Research Users' Council				
Top 10 dailies			Top 10 English dailies	
Name	Language	Readership Q4 of 2012	Name	Readership Q4 of 2012
1 Dainik Jagran	Hindi	16,370,000	The Times of India	7,615,000
2 Dainik Bhaskar	Hindi	14,416,000	Hindustan Times	3,820,000
3 Hindustan	Hindi	12,246,000	The Hindu	2,164,000
4 Malayala Manorama	Malayalam	9,760,000	The Telegraph	1,265,000
5 Amar Ujala	Hindi	8,434,000	Deccan Chronicle	1,020,000
6 The Times of India	English	7,615,000	DNA	972,000
7 Daily Thanthi	Tamil	7,334,000	Mumbai Mirror	819,000
8 Lokmat	Marathi	7,313,000	The Economic Times	735,000
9 Rajasthan Patrika	Hindi	6,837,000	The Tribune	671,000
10 Mathrubhumi	Malayalam	6,334,000	The New Indian Express	652,000
Total		96,659,000	Total	19,733,000

This reflects also in the fact that Hindi media registered the most growth, followed by publishing from other Indian languages.

2 Education for all in India, <http://www.educationforallinindia.com/>.





8.5 Limitations with the media...and implications for the MPA managers:

8.5.1 What are the limitations?

The media has strengths, but also limitations. The most important limitation is that the media works with catchwords. Let us look at some of the catchwords that we see in media when reading about environment. This is a computer generated tag cloud developed from a number of selected environment stories.

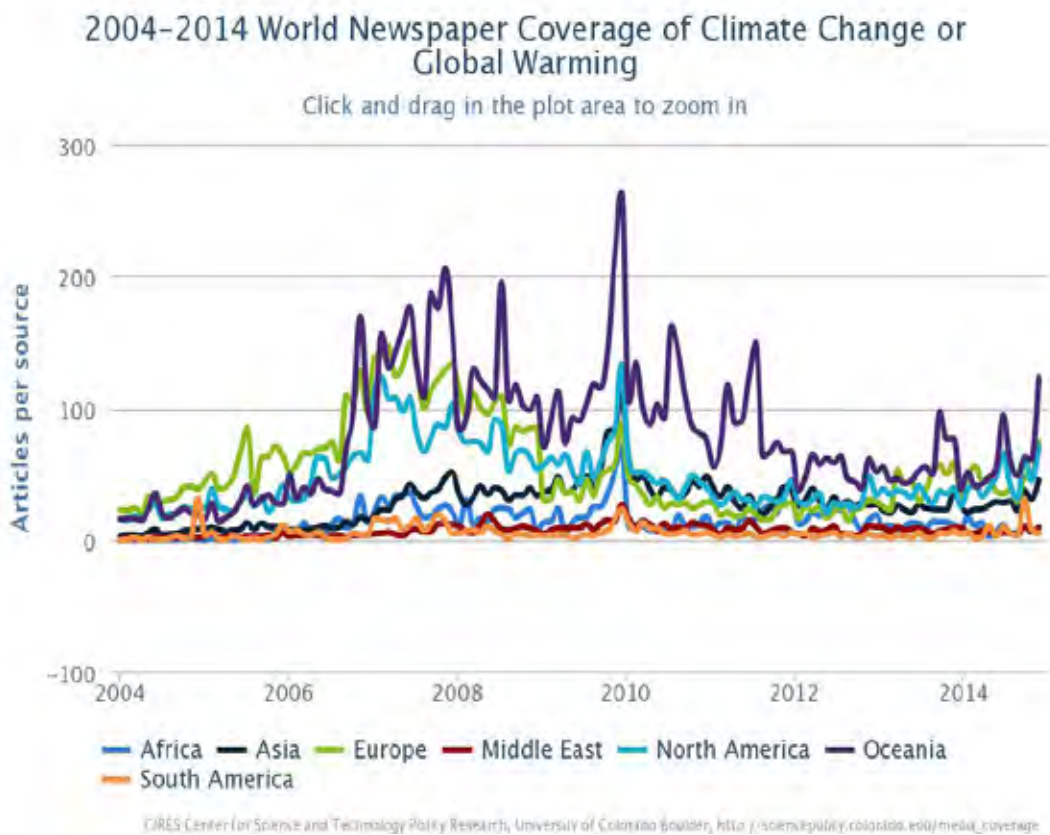


Thus, if you are talking to the media on biodiversity, climate change, developing countries, conservation, conference of parties (CoPs to the Climate Change or Biodiversity Conventions), water, emission targets, etc., you would get media attention quicker than when talking about say coral bleaching or fisheries issues, or mangrove habitat loss..

This means that our stories for the media have to be linked to these keywords to get journalists' attention. That is, coral bleaching will need to be linked to climate change, and mangrove habitat loss will need to be linked to the enhanced disaster threat to the coastal cities to get higher prominence in the media.

There is another limitation with the media. Its interest is related to news events. The Center for Science and Technology of the University of Colorado at Boulder, USA, has been carrying out a continuing research on monitoring how global media covers 'global warming' and 'climate change'. This is a continuing survey of 50 newspapers across the world, to analyse how the keywords are reported. Of the 50 newspapers, four are from India – The Hindu, the Indian Express, Times of India and the Hindustan Times.

A look at the global chart from 2000 to 2014 shows that there have been periods there have been intense coverage on climate change and global warming in the media, and periods of relative quietness.³

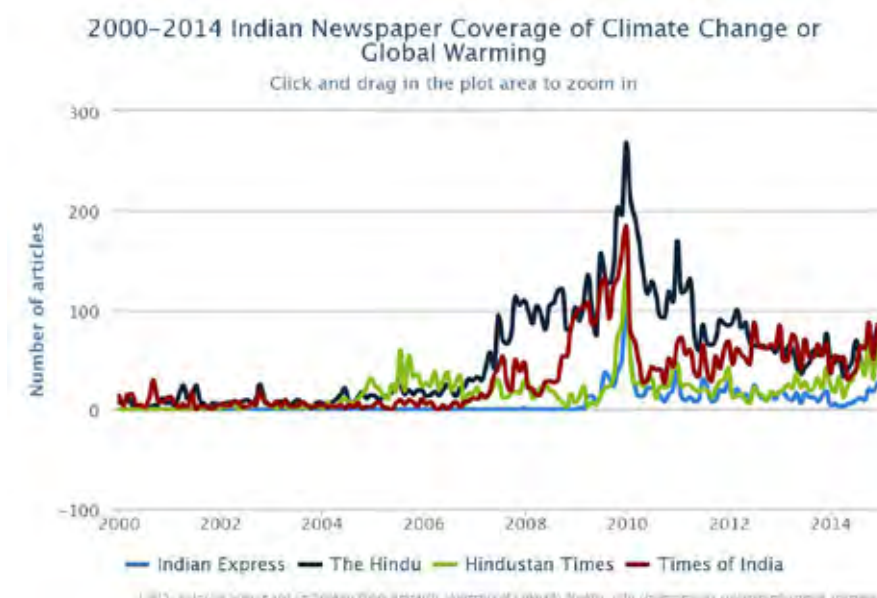


The highest peak for media coverage in all continents was in November-December 2009. It was for the CoP held at Copenhagen in Denmark, when the world attention was focused on whether global leaders would be able to decide on an instrument to reduce greenhouse gas emissions. The other spikes also are during the end of the years, when the annual CoPs are held in different parts of the world.

Thus, it is clear that media covers news about climate change and global warming just before, during and after the annual CoPs. So, presenting the story on corals bleaching due to global warming to journalists at the time of the CoPs will have a better impact in the media, than in any other month.

³ http://sciencepolicy.colorado.edu/icecaps/research/media_coverage/world/index.html

The trend is similar with Indian publications.⁴ The spikes are during the CoPs.



8.5.2 What media wants and covers

8.5.2.1 Understanding reporters

Let us understand how a reporter lives and thinks, so that we can try and get his/her attention. In the field, where the marine coastal protected areas (MPAs) are located, the first line of communication is through the reporters. These are usually the local staff reporters, or more often freelance reporters who write for newspapers or shoot for TV channels and are paid on a per-piece basis (in journalistic parlance these professionals are called 'stringers').

For these local reporters, the main focus is on political stories from their area of operation. Their normal beats consists of the district collectorate or the local revenue office, the local police office, the press club, etc. They are usually not accustomed to covering forest offices, unless there is a man-animal conflict or a major forest fire. And if they are not well aware of covering terrestrial forest issues, they are even less aware of coastal and marine conservation issues. It is difficult for them to understand why conserving corals are important for the ecosystem, or why dead dugongs are not a good indication.

The reporters in the far end of the field are usually young and inexperienced. They work on multiple stories at the same time. They are hard-pressed for time and energy and constantly trying hard to market their story ideas with their media gatekeepers. They work long hours, at least six days of a week, and not always well paid.

Given this situation, what is of importance to the managers of MPAs need not be of priority for the reporters. We will look at ways of making coastal and marine conservation interesting for journalists. But before that, let us understand editors who take decisions on what news to be published or aired and what importance is given to them.

⁴ http://sciencepolicy.colorado.edu/icecaps/research/media_coverage/india/index.html

8.5.2.2 Understanding the editors

Even if we manage to catch the attention of the reporters, the story will appear in the publication or will be telecast only if the editor is convinced in its merit. Thus, it would help if we can understand the lives and priorities of the editors.

Improving the circulation of her publication or improving the TRP of her channel is of prime importance for an editor. She is a packager who gets the most interesting stories that increases the impact of her media outlet. So she has to be convinced that the story will increase visibility for her outlet. With visibility comes better income for the publication/channel and that means lesser pressure for the editor from the owners and shareholders.

In this scheme of priorities for the editor, issues related to conservation and environment are not likely to be high on the list. She deals with multiple issues at the same time, and is very likely to have a short attention span for story ideas on these subjects.

There are times when it is not enough for a reporter on the 'environment/coastal' beat to be interested in a particular coastal issue. If the issue is such that a one-off report itself will suffice for highlighting the problem, it is good enough.

However, marine conservation and issues related to species, habitat, threat, impact – all these need long term sustained coverage by the media which ought to be able to track the progress – or continued deterioration – of that area after the issue was brought to light. This kind of detailed coverage needs a longer engagement not just with the reporter but the editor and other senior staff. Advocacy is something that needs to embrace the length of the editorial line as every journalist, cameraperson, sub-editor, page layout person, graphic artist need to collaborate with one another to bring out the best in coverage.

It is especially important to have a buy-in from the editors on the issue as it would then be possible for the effect to trickle down from the senior level. Driving her/his reporters for stories come naturally to editors and it is therefore a sort of guarantee that editors when made aware of and when convinced about the seriousness of the issue, will ensure better coverage.







8.6 The coastal and marine stories that the media usually covers

8.6.1 Connecting the dots with reference to trade

Besides the event-based reportage that one has emphasised in the earlier parts of this segment such as Tsunami, supercyclones, oil slick, international border disputes, the media is of late catching on to certain issues pertaining to the sea. With environmental journalism picking up pace in the past decade, there has been quite a shift in spotlight onto global warming, climate change and what seems the natural corollary – rise in temperature of sea waters.

Also on the subject of environment and ecosystems, a few media houses have begun joining the dots and reporters have done pieces on rising prices of seafood varieties owing to a threat to some of the species. A business programme on CNN did a seamless connection on one of its business shows a couple of years ago, on the brutal killing of sharks in the Middle Eastern seas owing to the direct demand from countries like Japan for the delicacy shark fin soup. When the media does programmes like these, it directly drives home the point that the threat of extinction of certain species is not just related to the marine biologists who study it or the fisherfolk who live off the sea, but is directly related to everyone who consumes seafood in faraway drylands as well.

8.6.2 Fishworkers issues

In India, the other issues that interest the media is of fishworker conflicts, both inter-state and inter-country like with Pakistan & Sri Lanka, sometimes even inter-districts! Environment does not follow political boundaries, but environment journalists usually take political pegs while following environment stories. And this is especially so when dealing with coastal and marine environment stories from areas that close to two or more national boundaries.

Thus, media stories from the Rann of Kutch region between India and Pakistan and the Palk Bay region between India and Sri Lanka usually have a political peg. Media attention gets diverted to these environmentally sensitive areas when there is a story that is caused by fishworker being arrested across the border.

A media capacity needs assessment in the Palk Bay⁵ showed that the fishermen conflict between India and Sri Lanka was the main news peg for journalists to write about coastal and marine biodiversity issues.

Through the fishermen conflict stories, the media has looked at stories on the social and economic significance of the ecosystem and the biological diversity of the Palk Bay. It has reported stories on the threats to the population of unique species of the region such as the dugong⁶ and threats to corals due to an aquacultured species of sea weed, *Kappaphycus alvarezii*, turning into an invasive species.⁷ The media reported about the discovery of new coral patches⁸ and increased smuggling of marine species.⁹

There is an environmental basis for the Rann of Kutch issue.¹⁰ Like in the conflict in the Palk Bay, the fishermen conflict in the Rann of Kutch is related to a decline in fisheries and marine resources. Too many people fishing too much has resulted in the resource crisis. Growing level of pollution, mechanised fishing and aquaculture have also contributed to this. Destruction of mangroves, changes in salinity and water temperature have further added adverse impact.

Sometimes the conflict between fishworkers of different districts makes news. As in the case of Karnataka where fishermen of Dakshina Kannada district and Mangalore in particular have often clashed with those from the neighbouring Uttara Kannada district. The factors causing this vary from difference in their economic strata by access to and wealth from newer fishing methods, as also territorial issues.

8.6.3 CRZ related issues

The other big stories in the past few years have been related to vanishing coastlines due to sea erosion and the direct effect on coastal tourism; the government's contentious policies of CRZ, the Coastal Regulatory Zone, that seemingly favours industry while further displacing fishermen communities.

Environmental projects though are the most natural choice of media, whether television or print. Nothing seems to arouse the interest of the media as much as visuals of men and women who have taken a stance against the project. Besides rightfully taking up the cause of those affected, it helps that protesting people make for stronger visuals than just a calm unspeaking sea!

5 Khera N, et al. Capacity development needs for sustainable management of marine and coastal protected areas in India: A cross-sector assessment. *Envis Bulletin*. 2014;15.

6 Scott DJW. Dugong under threat in Gulf of Mannar. *The Hindu*. 8 Oct 2013.

7 Oppili P. Invasive seaweed destroying coral colonies in Gulf of Mannar. *The Hindu*. 18 Mar 2011.

8 Live patch corals discovered in Palk Bay. *The Hindu*. 5 Sep 2014.

9 Vashishtha A. Illegal trade of marine species on a sharp rise. *Mail Today*. 27 Apr 2014.

10 Gupta C, Sharma M. Blurred borders: Coastal conflicts between India and Pakistan. *Economic and Political Weekly*. 3 Jul 2004.

8.6.4 Coastal tourism

There is something about the sea that is compelling, awe-inspiring no matter how many times you look at it. And for those who live far away from its shores, the sea can be a magnet.

It is this combined element of fun, mystery and adventure that can be harnessed under the banner of coastal tourism. Depending on the location of the beaches and the nature of their formation, the places in the shore area can be developed into adventure sport zones or religious and cultural centres.

There are many stories on tourism, and also on the resource conflicts that tourism generates in the media.

Karnataka has set an interesting example by developing its coastal district circuit as tourist zones. All along the Dakshina Kannada coast, many old renowned temples stand in the backdrop of the majestic sea. One of them is considered the world's tallest Shiva statue and tourists flock to see this, adding to the revenue and prosperity of the small town. On the east coast, Odisha's famous temple town of Konark which has the world-renowned temple is by the sea-side. Pristine white beaches that are a delight to watch have the potential to be a great beach/sports destination and earn much required revenue for the State's coffers.



8.7 How to get media attention on coastal issues?

Since 1991, when economic reforms were initiated, the main theme of media reporting has been economic development in the country. Thus, to present the importance of coastal and marine conservation to the media, there is a need to emphasize that conservation has positive economic impacts.

It would help to introduce the concept of sustainability to the media. This can be strengthened with the importance of ecosystem services that conservation can provide.

Obviously these concepts will not have an impact with the media if presented without a context. They can be introduced when the media is covering an event or an issue. For instance, if there is newspaper coverage on the forest department breaking a smuggling ring that has been stealing sea cucumber across the international border in Palk Bay, that is the time to talk about what role the animal plays in the web of life in the bay ecosystem, its ecosystem services, and what is the threshold to which it can be harvested sustainably. The concepts of sustainability and carrying capacity can also be introduced when there are media stories of virginal beaches getting destroyed due to irresponsible coastal tourism.

8.7.1 The concept of sustainability

When there are developments along the coast, the questions that are often asked are: how much is too much, when should development stop, and till when is it sustainable to develop?

The three broad approaches to sustainability are said to include the economic, the ecological and socio-cultural.¹¹ The economic approach to sustainability aims at the maximum flow of income that can be generated while maintaining the stock of assets. The ecological approach to sustainability seeks stability of biological and physical systems. The emphasis here is to preserve the resilience and dynamic ability of natural systems and sub-systems, including man-made environments like cities, to adapt to change. The socio-cultural approach to sustainability focuses on maintaining the stability of social and cultural systems and the reduction of conflict. The concepts of inter- and intra-generational equity are critical to this approach.

¹¹ Munasinghe M. 1993. Environmental economics and sustainable development. World Bank publications.

What does this mean for the coasts? Development should not cross the boundary where it depletes the natural assets beyond the point of their regenerative capacity, it destroys the balance between the life forms and the habitats, and leaves no resources for the deprived in this generation and those of future generations.

The Convention on Biological Diversity (CBD) defines sustainable use of biodiversity thus.¹² “Sustainable use” means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

8.7.2 Ecosystem Services: provisioning, regulating, supporting and cultural ecosystem services

The Millennium Ecosystem Assessment of 2005¹³ (MEA) defines Ecosystem services as the benefits people obtain from ecosystems. They illustrate the link between interactions of species with each other and physical environment, as well as the usefulness of these functions for the well-being of people, in terms of wealth, nutrition and security. Ecosystems provide a variety of benefits to people, including provisioning, regulating, cultural, and supporting services.

The report defines ecosystems as a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit. Biodiversity is the foundation of resilient ecosystems supporting vast array of ‘functions’. Genetic, species (animal and plant) and habitat diversity have important roles to play in the ecosystem functioning, such as enabling the development or natural evolution of breeds and races that thrive under a variety of environmental conditions; provision of food, building materials, energy and medicines; and functions such as pollination, waste assimilation, water filtration and distribution of seeds and nutrients.

Changes in biodiversity can influence all these functions (e.g. pollination, nutrient cycling) and products arising out of these (e.g. food, medicinal plants). While the variety of life and diversity of living species has an intrinsic value independent of any human concern, here, we will discuss the value in relation to human beings i.e. ecosystem services, a concept which is the principal framework for expressing the “usefulness” of biodiversity. The concept of Ecosystem Services is becoming popular as a way to encourage discussion about the dependence of people on nature and what this means both socially and economically.

¹² <http://www.cbd.int/convention/articles.shtml?a=cbd-02>

¹³ Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Synthesis. Island Press, Washington, DC.





TII/10/WV 934

8.8 Strategic communication for media relations

For effective media relations there is a need to build communication bridges with appropriate journalists before an event happens or an issue arises. A relationship of trust has to be built beforehand, which can be tapped into when an event happens or a crisis develops. Media relations have to be a part of strategic communication policy for the MPA.

Strategic communication involves communicating the right message to the right people through the right medium at the appropriate time.

8.8.1 Four principles:

There are four principles to strategic communication:¹⁴

- 1. Understand what the media needs.** It is not enough to say that we have this information, let us give it to the media. This information is unlikely to be used by the media. Instead, it helps to make an effort to understand what the media needs and provide it to them. Thus, if there is an oil slick in Palk Bay and suddenly the media has the need to write about the ecosystem of the bay, the MPA managers should be in a position to use this window of opportunity to articulate the uniqueness of the ecosystem and the need to conserve it.
- 2. The whole is more than the sum of the parts.** In media relations it is difficult to understand the larger picture at any given point of time. Situations change, events and crises can happen. It is when these developments take place that we realise the importance of media relations bridges that we have built and laid in place beforehand. If we have built trust beforehand with the journalists, they will trust our words even during a crisis. So every small bit of effort we have made to build bridges with journalists has a higher payback than what was invested in times of need. The whole impact of media relations as part of strategic communication is more than the sum of the parts we would have invested in building these bridges.

¹⁴ Warriar, S. Gopikrishna. Media relations: Principal tools, methods and ethics.

For instance, if the MPA managers at Palk Bay had taken the journalists to one of the Gulf of Mannar islands earlier, it would help the journalists to write about the impact of sea level rise due to climate change, or the impact of high tidal waves during a cyclone or tsunami. As a result, it would be easier for the journalists to appreciate that a wave that is one metre higher than usual can cause damage to the islands, and it is difficult for the managers to prevent this damage. This can avoid the kind of stories that come routinely after such events that state the damage has happened because of the MPA managers' neglect.

- 3. Traffic flows on bridges unexpectedly.** MPA managers should never avoid any situation that can help them build trusted communication bridges with journalists. Only when these bridges are built beforehand does the journalist know that manager X is a trustworthy source of information. This will ensure that whenever the journalist has to follow a story that is related to the manager's work, the journalist would get in touch with the manager. The communication bridges cannot be built at the time of an event or a crisis. It is better to build them earlier, and suddenly when there is need, traffic will flow on the bridge unexpectedly. Many journalists following environmental stories for the national and international media often take their story leads from local stories. So if we have built our bridges with the local journalists, we may even receive that unexpected call from National Geographic wanting to write about our MPA.
- 4. Strategic communication is a process and not a product. If we do the process right, we can expect the result to be positive.** In media relations it is not always possible to see an immediate link between cause and effect. Thus, every time we talk to a journalist, we may not see a story. But every time we talk we talk with a journalist and invest in the process of communication, we can expect the product (the coverage whenever that happens) to be positive.

What is my expertise
in communication methods?

Game time!!!

Blog

Photography



P.R.
Material
Poster
Pamphlet

video

skit

PPT

Talk

Drawing



8.9 Conventional and time-tested tools for engaging with the media

8.9.1 Press release or press statement

A written press release or a press statement is the primary tool for media relations. It will articulate in black and white what the MPA managers want to communicate to the journalists. A press release helps avoid ambiguities in the communication.

A press release should preferably not more than two pages. It should focus with not more than one main idea. There can be two or three supplementary ideas, but the focus of the press release on one main idea. It should answer all the immediate questions of the journalists – i.e., it should answer the who, where, when what, why and how (5Ws and 1H) in its lead paragraph.

Since the main purpose of a press release is to help the journalists write a clear, straightforward story, it should be written in the same form in which a news report is written in a newspaper. The most important paragraphs should be the early ones and the less important ones in the end. This is what is known as ‘the inverted pyramid’ style of writing in journalistic parlance.

Writing in simple, straight sentences in an active voice will increase the effectiveness of the press release. Avoid jargon. For instance, if you say CBD-CoP, explain that it stands for the conference of parties to the Convention on Biological Diversity. One line on what the CBD is will also be helpful, since many of the journalists who receive the press release need not be specialising in environmental journalism.

The press release should quote at least one official concerned, for instance the director of the MPA. It should also have the name and contact details of one official whom the journalists can contact for further information. This need not be that of the director, but that of the official whom the director has nominated to be the spokesperson with the media.

A press release is also an important tool for giving a focus to a press meeting. If the press release is given to the journalists as soon as they come for the press meeting, they know what the meeting would focus on. This would help avoiding questions that would otherwise go off at a tangent.

It would help if each MPA creates a distribution list for press releases. This can be a list of fax numbers or email addresses of journalists, and the MPA can send a press release when there is a news to report to the media. Establishing a distribution system at the MPA headquarters will ensure that the process of communicating with journalists continue even after MPA managers get transferred to other postings.

The following graphic illustrates the typical components of a press release.



8.9.2 Press meeting

This is a meeting where the MPA director or other assigned officials, with or without other senior functionaries, meet the journalists to have an interaction. The interaction can last anywhere between 30 to 90 minutes, and would help convey one main idea followed by up to three supplementary ideas.

Preparing a press release is essential for keeping the press meeting focused on the issue at hand. If you want to give background information, then a separate background note can be prepared. A press release and a background note are two different documents that serve different but supportive functions.

Let us illustrate this with an example. If the MPA managers of the Gulf of Mannar National Park have called a press meeting to talk to journalists about the problems caused by the invasive sea weed *Kappaphycus alvarezii*, then the press release should talk about the problem and the solution suggested by the MPA managers. The background note can support this press release by giving a history of the conservation efforts in the Gulf of Mannar-Palk Bay area and how the National Park and the present governance structure came into being.

A background note need not follow the inverted pyramid style of writing, which is mandatory for a press release. But the background note also needs to be written in simple, straight style in active voice. Like the press release, a background note is also intended to clarify issues rather than complicate them. So avoiding jargon is a must.

A good press meeting follows a 40:60 communication model. The press meeting is begun with a welcome and a quick presentation (not PowerPoint) of the issue at hand. This presentation should not take more than 40% of the time allocated for the press meeting. The remaining 60% should be kept open for journalists' questions and the supplementary explanations that would follow. Thus, if a press meeting is scheduled for an hour, the initial presentation should end in 20 minutes, with 40 minutes kept aside for questions and answers.

It pays not to complicate a press meeting with multiple messages. So in the initial presentation phase there should be one main speaker, speaking about the main issue at hand. Up to two other supporting speakers can make presentations (this is not a must). Their presentation should add to the main issue at hand.

This means that during a press meeting on *Kappaphycus*, one of the speakers should not suddenly talk about Sri Lankan fishing vessels getting into Indian waters. This will confuse the main message for the press meeting. During the interactive part of the press meeting the journalists may ask about the conflict between Indian and Sri Lankan fishermen. The issue can be taken up and answered then.

If we confuse the messages during the initial presentation, there is the danger of newspapers running a story the next day with the headline that may read something like this: "Sri Lankan fishermen causing havoc in Gulf of Mannar says MPA director." Certainly, this is not what we set out to communicate through our press meeting, and as MPA managers we know the impact of such reports in the media.

Unless there is a crisis or something urgent to be communicated, a press meeting should not be held during the period when the State Assembly or the Parliament is in session. The privilege of talking to the media during those periods rests with the elected legislators.

Journalists, especially those working with daily newspapers and TV/radio channels, follow a biological cycle that is different from that of other regular office goers. Their days start late and extend late into the evening, till they file their news stories. Thus a press meeting scheduled to start at 0900h is guaranteed to have poor attendance. The best time slots are either from 1100 to 1300 followed by lunch, or from 1500 to 1700 followed by tea.

It is important to organise the press meeting at a central location, easily accessible to journalists. The offices of the district public relations officer in the collectorate or the press club are places to which journalists gravitate to easily. If a press meeting is being organised at the MPA office, which is outside the main urban centre, then convenient transport would need to be organised from the city centre.

8.9.3 Media expeditions

Seeing is believing for everybody, but more so for journalists. Thus when talking about the importance of conservation of coastal and marine biodiversity, the impact of taking the journalists on a tour to the MPA will be far higher than holding a press meeting in an office. A one-day tour usually helps journalists to appreciate better the issues and challenges that MPA managers face.

A media tour develops trust, builds relationships and removes misconceptions. It helps in improved reporting of activities being carried out by the MPA managers.

A special bonding develops between the MPA managers and journalists when riding together in a jeep on a bumpy forest road or sailing in a boat rolling on the waves. This relationship built in a natural environment is usually remembered over years, and will immediately help in building a trust quotient that will come in useful during crisis situations.

8.9.4 Media workshop

A media workshop is a one or two-day event that has both classroom meetings and field tour. Multiple experts can interact with the journalists during a media workshop and thus can help journalists understand an issue in all its complexities. For instance, for a media workshop about a MPA, marine biologists and economists can also be invited as expert resource persons in addition to the MPA managers.

The benefit of a media workshop, as against a press meeting, is that journalist-participants can be carefully selected. About 20 to 25 journalists is an effective participation for a media workshop. It helps to organise a media workshop away from the urban centre and closer to the MPA. This will prevent distractions during the sessions.

8.9.5 Media fellowship

A media fellowship is financial support for interested journalists to pursue a series of stories related to coastal and marine biodiversity conservation. A media fellowship usually starts with a media workshop. After the workshop, the media fellow follows stories of his/her accord related to topic of the fellowship.

Media fellowships help journalists to strengthen their understanding on coastal and marine biodiversity through their reporting. A fellow's relationship with the experts he/she works with usually lasts for a long period during their professional career.





8.10 Linking to the world with online media

8.10.1 Overview of social media platforms:

Blogs, Twitter, Facebook, LinkedIn have become common terms used in communication in the present day. Each of these social media tools have their strength and weaknesses for reaching out to the media and outreach. They overcome the limitation of time and space, i.e., they can be used to reach across continents, and they also stay in cyberspace for a long time, so can be referred to by journalists and others who are interested in MPAs years later.

Blogs are very personal communication narratives, which can be used to tell stories informally. Stories can be told that can move across themes and specializations – science, environment, society, politics, economy, etc. Blogs can be promoted on Facebook, LinkedIn and Twitter.

Conservation International (CI), one of the most prominent organizations working in the conservation arena, partnered with the #GivingTuesday movement to raise funds for conservation activities. The day refers to the Tuesday after Thanksgiving celebration in the United States held every November. The #GivingTuesday movement encourages people to do a good deed on the said date, such as donate money to charity or sign up for volunteering activities. Last year, CI used various social media sites like Facebook, Twitter, Tumblr and Pinterest to communicate its own #GivingTuesday campaign. CI crafted messages, mostly photographs, inspired by the theme *Nature gives to us, it's time to give back*.

Netizens were given three options on how they can participate in CI's #GivingTuesday. First is by donating money to support CI's various conservation initiatives. Second is by following their official Twitter account and/or by using the hashtag #GivingTuesday, and joining the online conversation on philanthropy and conservation. And last is by applying some of CI's simple steps to live green such as drive less, eat greener, recycle everything else, get involved locally, and others.

Twitter is micro-blogging that has become internationally important in the recent years. Tweets are short messages – 140 characters long. Their brevity is their impact. Hyperlinks for blogs can be Tweeted. In the recent years, Tweets have become a primary source of information for many journalists.

Facebook permits creation of closed groups that can bring together experts and journalists who are interested in knowing about MPAs. Through these groups, experts and journalists can exchange stories and story ideas.

However, we need to remember, social media is an informal media. Involving with social media would require a change in attitude towards communication, since MPA managers can also be vulnerable to strong criticism and critiquing.

8.10.2 How social media can help the managers in conserving their sites?

Social media can provide great insights into how people interact with nature—most people enjoy the outdoors with a camera and often share their photos on networking sites. Websites like Flickr contain millions of photographs of natural spaces that people have taken and chosen to make publicly available. Importantly, many of these photographs are “geo-tagged” (i.e., the location where the photograph was taken is recorded, give or take 10 meters). The photos visitors take and share, then, can provide valuable information for researchers and conservationists.

Social media and the web of life:
How social media is helping spread the conservation message

It connects people and opens opportunities for interaction on biodiversity-related issues.

It is a powerful tool in raising public support for conservation.

Since social media is growing by leaps and bounds, it can bring the conservation message to an increasing number of audiences.

Since it is affordable, it is a significant help for conservation and government organizations which often have limited budgets for awareness raising programmes.

Social media complements messages shared via other communication channels.

ASEAN CENTRE BIODIVERSITY www.aseanbiodiversity.org

Images uploaded to social media websites hold valuable data that could be used to help protect or manage natural spaces, a study has suggested.

Geotagged images provided a precise location of where the photo was taken and how people were interacting with the environment, it added.

This data could be collated to provide information that could help inform the management of ecosystems.

[Source: Selfie-help for conservation areas, By Mark Kinver Environment reporter, BBC News, 11 December 2014. From the section- Science & Environment, See this link for full article <http://www.bbc.com/news/science-environment-30435350>

Case study of use of social media for effective management planning What do people think of Singapore's mangroves?

Singapore is a small island city-state in Southeast Asia. 13% of the island was historically covered with mangrove forests, which are coastal forests that grow in shallow, muddy water. Since Singapore became independent in 1965, rapid population growth and urbanization has led to the loss of 90% of the original mangroves. Only a few small patches of mangrove forest now remain in Singapore, which are only accessible through managed interactions in nature reserves and public parks.

In the 700 photographs from the four mangrove areas we examined, we found there were significant differences in the types of photographs taken at each mangrove. The type of photograph taken at each mangrove site depended largely on the surrounding animals, plants, and the presence of man-made features such as rest shelters and boardwalks. For example, we found there was a higher percentage of wildlife and plant photographs at Sungei Buloh. This makes sense given that of the studied areas, Sungei Buloh has the largest continuous area of continuous mangrove and holds a Nature Reserve and several shelters for viewing wildlife.

The high precision of geo-tagging also allowed us to investigate how people interacted with the environment within one mangrove area. At Chek Jawa, a mangrove that is maintained by the National Parks Board, we found that photographs of wildlife were rarely taken on the ocean boardwalk. This was surprising, since the boardwalk was constructed to allow people to see animals like crabs and mudskipper fish at low tide. This led us to ask why visitors may not be taking photographs of these rare organisms—are they not aware of them or just not interested?

Our research inspires us to increase the interactions between visitors and these animals by improving the habitat to increase the abundance of organisms, updating signs and information boards that draw attention to the relevant species, or providing facts and information that help visitors better appreciate the animal diversity.

Wildlife managers can likewise use data mined from social media to better plan and run nature areas by providing the infrastructure to allow visitors to interact with the types of nature that they are most interested in—the method described here is just as suitable for New York's Central Park as it is for Singapore's Sungei Buloh Wetland Reserve.

[Source: HIPPO Reads <http://read.hipporeads.com/social-media-as-a-conservation-tool/>]

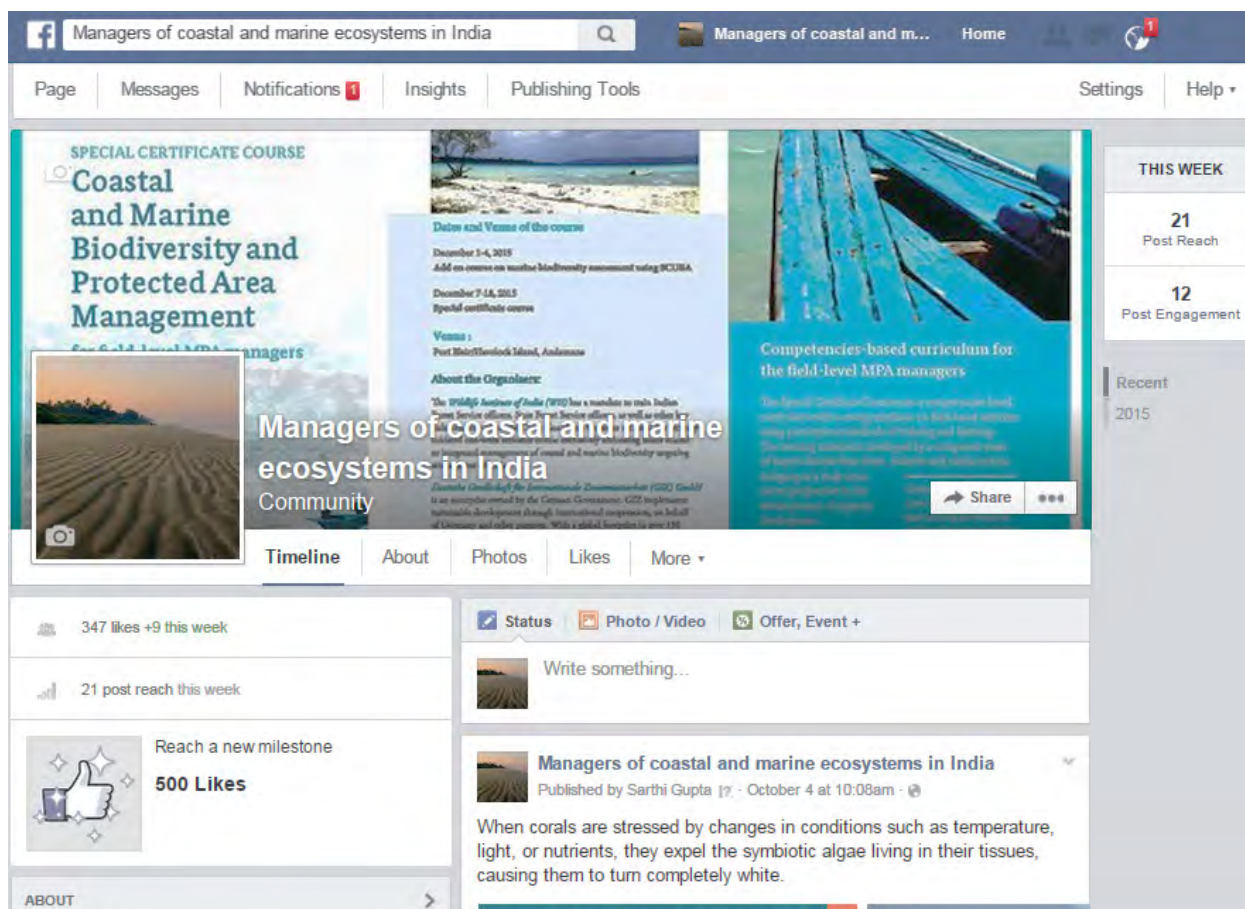
8.10.3 Social media and International conservation organizations:

Many prominent organizations and government agencies working on environmental conservation have joined the social media bandwagon. The World Wildlife Fund (WWF), the world’s largest environmental charity organization, employs social media tools to boost its communication campaigns. The organization believes that social media has given them the opportunity “to engage supporters and reach new audiences in a way they have not ever been able to in the past.” The new media allows open dialogue and personal connection making the people more engaged and aware of the organization’s agenda. WWF proudly shares that its website is its home base, the blog its podium, and social networking sites its megaphones.

Other organizations are also using social media to complement their communication strategies. In 2010, the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WC-MC), together with the International Union for Conservation of Nature, launched Protectedplanet.net. The website, an interactive, social media-based site, allows the general public to upload photographs, record wildlife sightings, and contribute reviews of visits to protected areas.

Beyond its power to create public awareness, social media is proven to be a platform for long-term and high-impact initiatives. Experiences of various international organizations and academic and research institutions show that the social media can carry citizen science and crowdsourcing, fund raising, and enforcement programmes.

Facebook page of the WII-GIZ course on coastal and marine biodiversity



Wildlife enforcement is now viral

Events of cruelty to wildlife can easily spur social media outrage. This shows how powerful social media is in raising public support for conservation action. Several events of wildlife slaughter and illegal trade were viral in Facebook and Twitter. These also led the authorities to take legal actions regarding the incidents.

In the official Facebook page of Wild Bird Club of the Philippines (WBCP), the Club regularly posts incidents of poaching and illegal trade of wildlife particularly birds. Some of these incidents include an online site selling a seven-month old Eagle Owl, an airline company allowing illegal transport of the Philippine Eagle, and a government official killing the vulnerable and protected Philippine wild ducks. Most of these Facebook posts were picked up by national television networks and broadsheets. Recently, WCBP posted a picture of a local hunter in Northern Philippines who displayed a dead juvenile hornbill he allegedly shot with an air gun. The DENR immediately looked into the reports of illegal bird hunting in the region.

In November last year, Melissa Bachman, an American TV host of Winchester Deadly Passion, triggered the online community by posting in her Twitter account a photo of her kneeling and smiling with a rifle in hand, behind a lion she had shot and killed in South Africa. More than 485,000 netizens signed an online petition on Change.org addressed to the government of South Africa to make Bachman a persona non grata. A “Stop Melissa Bachman” page on Facebook generated more than 368,000 likes.



Early this year, the traditional dolphin hunt in Taiji Cove in Japan was a trending topic in social media. Various hashtags such #tweet4taiji, #HelpCoveDolphins, and #tweet4dolphins trended on Twitter to raise awareness about this mass slaughter of dolphins. The social media outrage was picked up by CNN, and elevated the controversy in the international media.

In Facebook, people are more likely to respond on issues affecting them on the emotional level. In the experience of Rimba, a group of conservation biologists in Malaysia, it is easier for conservation issues that cause moral outrage (e.g. animal abuse) to become viral on social networking sites compared to intangible long-term conservation issues (e.g. deforestation, illegal wildlife trade). On its official Facebook page, the group shared a local tour operator's photograph of snorkelers harassing an endangered green turtle (*Chelonia mydas*). The post depicting animal abuse went viral, and drew the attention of the media. This eventually led to the Malaysian Fisheries Department investigating the incident, and the tour operator issued a public apology.

[Source: ASEAN Centre for biodiversity http://www.aseanbiodiversity.org/index.php?option=com_content&view=article&id=713:communicating-biodiversity-in-the-era-of-social-media&catid=1:news&Itemid=109]

Some Biodiversity Blogs:

[Source: **The Pimm Group** <http://thepimmgroup.org/919/best-biodiversity-blogs/>]

The Sticky Tongue

<http://thesticktongue.com>

The Sticky Tongue is a quirky, imaginative approach to informing and educating about biodiversity and conservation. The blog focuses on herpetology. But its Biodiversity Photo of the Day can be anything from the Vancouver Island Marmot (one of the rarest animals in North America) to the critically endangered Lord Howe Island Stick Insect. The blog's author is Candace Hansen. She has "a passion not just for reptiles but also for all forms of wildlife conservation and animal rights." In particular, her blog does not preach environmentalism and activism. Rather, she presents the issues, often with a touch of humor, to inform and educate. It's only been online a short while, but its traffic has grown fast.

The Artful Amoeba

<http://theartfulamoeba.com>

Jennifer Frazer is a science writer living in Boulder, Colorado. She dislikes the term "biodiversity" because "it turns people off to the subject" and "It's too often used for boring platitudes about species richness." Jennifer has a bachelor's degree in biology with a concentration in systematics and biotic diversity from Cornell University. She also has a master's degree in plant pathology with a concentration in mycology (also from Cornell), and a master's degree in science writing from MIT.

Island Biodiversity Race

<http://islandbiodiversityrace.wildlifedirect.org>

Island Biodiversity Race highlights the vulnerability of island biodiversity due to the relatively rapid loss of species from islands. The blog focuses on islands in the Gulf of Guinea, primarily São Tomé. The contributors provide an account of expeditions funded by the California Academy of Sciences, the Republic of São Tomé and Príncipe government and others. The blog is hosted by WildlifeDirect, a Kenya and US registered charitable organization founded and chaired by African conservationist Dr Richard Leakey.

Agricultural Biodiversity Weblog

<http://agro.biodiver.se>

Mostly, talk of biodiversity concerns natural species and habitats. The Agricultural Biodiversity Weblog highlights biodiversity in a non-natural system — agriculture. This is important because an oft-cited reason for preserving natural biodiversity is to provide a source for new genetic material that could have practical applications, primarily in agriculture. The site's authors are Luigi Guarino and Jeremy Cherfas, both professionally involved in biodiversity. Their goal is to collect in one place anything they find on the Internet that relates somehow to the notion of agricultural biodiversity. Luigi Guarino is Senior Science Coordinator at the Global Crop Diversity Trust and served as a consultant for the FAO and IBPGR from 1984 to 1988. Jeremy Cherfas is responsible for public relations at Biodiversity International. He has extensive experience as a science writer and editor, for print, radio and TV.

Ohio birds and biodiversity

<http://jimmccormac.blogspot.com>

You don't think of Ohio as a biodiversity hotspot, but Jim McCormac does a nice job of highlighting his state's natural beauty and biodiversity. McCormac has made a study of natural history since the age of eight. His goal is to get more people interested in nature. In doing so, he says, "The more of us who care, the more likely that our natural world will survive."

David Without Borders

<http://www.davidwithoutborders.com>

Blog authors David Aimé and David Fabrega call themselves explorers of biodiversity. They use images and video to "gather the most current information from local entrepreneurs, scientists, and communities on biodiversity and sustainable development topics." They're blogging during their around the world trip planned to be completed in July 2011.

Biodiversity Media Alliance

<http://biodiversitymedia.ning.com>

This social network site was created IIED, IUCN and Internews to help connect journalists with the biodiversity scientists. Its goal is to increase the quantity and quality of coverage of biodiversity issues in the media. You need to register to become a member. Members can use the blog section to share news, thoughts, ideas and publications, as well as include photos and links to other websites or attachments.

2010 International Year of Biodiversity Australia

<http://www.biodiversity2010.org.au>

The site is a "biodiversity hub" for events in Australia. It is a part of the Council of Australasian Museum Directors (CAMD) International Year of Biodiversity project. The site is a venue for others to promote biodiversity news and events, showcase stories, and share ideas and find events and resources. Although it is not a blog in the strict sense, it is a great site!

Mongabay.com

<http://www.mongabay.com>

Mongabay is the most popular website in our list. Since 1999 it has been dedicated to rainforest conservation news and activism. It has done a good job reporting on biodiversity loss. Founder Rhett A. Butler does not have a biology background but he has authored or co-authored several papers published in peer-reviewed scientific journals. According to the site's About page, the site has been featured in the San Francisco Chronicle, Time Magazine, The Wall Street Journal and has provided advice and assistance to numerous other organizations.

Migrations

<http://migration.wordpress.com>

This blog is the work of Dan Rhoads, an American molecular biologist who has moved to the Republic of Cyprus and now works in the biotech sector. As a longtime birdwatcher, Dan is an ardent supporter of the work of BirdLife Cyprus, and this blog now focuses mostly on topics relating to the nature of Cyprus. Dan frequently covers biodiversity issues in his posts.

The Biodiversity crew @ NUS

<http://nusbiodiversity.wordpress.com>

A news site about staff and students in the biodiversity research focus group at the Department of Biological Sciences, National University of Singapore.

Biodiversity Heritage Library

<http://biodiversitylibrary.blogspot.com>

Twelve major natural history museum libraries, botanical libraries, and research institutions have joined to form the Biodiversity Heritage Library. Posts are a hotchpotch of quirky insights into the literature and history of biodiversity, such as Book of the Week and links to archives such as Memoirs of the Torrey Botanical Club. 1899-1902 and Journal of the Asiatic Society of Bengal. v.3 (1907).

Zero Race

<http://www.zero-race.com>

The Zero Race Blog follows zero emission cars in an around the world in 80 days race. The blog is not about biodiversity as such, but the race aims to 'raise awareness for Biodiversity Protection. "Each car has the name and the logo of a species that is threatened by climate change," to show "that electric cars and renewable energies provide a solution to help protect biodiversity."

Main sources

BBC Science & Environment, <http://www.bbc.com/news/science-environment-30435350>

Role & Impact of Media in spreading awareness of energy conservation : A comparative study of Print & Electronic media http://www.ripublication.com/ijesdmspl/ijesdmv4n3_20.pdf

The Pimm Group <http://thepimmgroup.org/919/best-biodiversity-blogs/>

ASEAN Centre for biodiversity http://www.aseanbiodiversity.org/index.php?option=com_content&view=article&id=713:communicating-biodiversity-in-the-era-of-social-media&catid=1:news&Itemid=109

HIPPO Reads <http://read.hipporeads.com/social-media-as-a-conservation-tool/>

Bhatia, S., 2015. Catalysing Awareness — How Mumbai's Media represents its Leopards, Conservation India: Enabling conservation action. Retrieved on 26th September 2015 from <http://www.conservationindia.org/articles/mumbai-media-leopards>]

Riverbank Studios Retrieved on 01st October 2015 from http://www.riverbankstudios.com/doc_shores_of_silence.htm

Further Resources

Otter conservation in India: Can mass media play a role – Ashgar Nawab & Parkshit Gautam | <http://www.moef.nic.in/sites/default/files/nlcp/C-%20Biodiversity/C-37.pdf>

Media has uncommon opportunities for promoting biodiversity conservation | <http://www.icrisat.org/newsroom/news-releases/icrisat-pr-2012-media15.htm>

Environmentalism and the Mass Media: The North/South Divide, Chapman et al, Routledge, 2003

Understanding the Role of Representations of Human–Leopard Conflict in Mumbai through Media-Content Analysis - Saloni Bhatia, Conservation Biology, 2013 http://www.conservationindia.org/wp-content/files_mf/Bhatia-et-al-2013_leopards-and-mass-media_conbio-1.pdf

Can Mass media help in Conserving Mahseer & Riverine Ecosystem? - Nishikant Gupta, 26 JUNE, 2014 <http://www.indiawilds.com/diary/can-mass-media-help-in-conserving-mahseer-riverine-ecosystem/>

Recommendations from the Workshops Communication for Biodiversity Conservation Education for Sustainable Future – International Conference 18-20 Jan 2005, Ahmedabad

Media's Role, Responsibility In Covering Sustainable Development <http://www.un.org/press/en/2002/ENVDEV619.doc.htm>

Media in Support of Sustainable Development and a Culture of Peace, UNESCO 2015. http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/San-Jose/pdf/Book_UNESCO_Media_and_Development_May_2015_01.pdf

Role of the Media in Achieving a Sustainable Society, Tim Bodt <http://www.bhutanstudies.org.bt/publicationFiles/ConferenceProceedings/MediaAndPublicCulture/M-21.pdf>

Media coverage of nature conservation and protection in Nigeria National Parks <http://www.academic-journals.org/journal/IJBC/article-full-text-pdf/EFFD8CA11656>

The role of print media in the campaign for Water conservation: a content analysis of the daily nation newspaper <http://erepository.uonbi.ac.ke/xmlui/handle/11295/3460>

