

Managing Coastal Marine Biodiversity and Protected Areas

For MPA managers

Module 11

Communicating coastal and marine biodiversity



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Disclaimer:

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Summary

This module will help managers of marine and coastal protected areas (MPAs) understand how media looks at coastal and marine conservation issues. Since conservation is not in the media priority and biodiversity come into news only when an event happens, the module will help managers to understand how to get journalist attention on conservation using the news pegs. 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.

Key Messages

- 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.
- Only media has the potential of taking the message on conservation of coastal and marine biodiversity to the public. And when the public is interested, they would enthuse/persuade/force the policy makers to be interested in the issue.
- The media has strengths, but also limitations. The most important limitation is that the media works with catchwords. The second limitation is that there are certain time periods when the media has interest on environmental issues, and you need to catch those periods to ride in with the journalists' attention. There are two other limitations – what you are communicating has to catch the reporter's attention, and it has to further catch the attention of the editor.
- 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, give or take 10 meters). 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.



Media is a key stakeholder of the conservation movement, its support is pivotal for saving the biological diversity. However, many a times it does 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.

11.1 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 marine variety? Does it mean that marine biodiversity issues, conflicts, diminishing of species are not relevant to us 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.

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 by carrying the words of those who led its struggle, reporting atrocities by the rulers and critiquing the policies of the Crown. 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.

After Independence in 1947, this self-imposed mandate continued for a while with a little change in outlook. Now it was time for the media to help the fledgling government work towards building India both from within as well as externally so it could stand up to the might of its peers across the world.

This period lasted right upto the 1970s, which saw the Emergency, which is when the anti-establishment face of the media began to show up. Newspapers and magazines, which until then had a milder role, began to proactively question and criticise the government and began to report on the sorry state of the common people who had to bear the brunt of flawed policies and corruption in administration.

Conflicts arising out of these issues, protests, factory worker issues, the gross abuse of human rights, hunger, starvation, famine, droughts, custodial deaths, were the stories that interested the media. All these happen only – or at least mostly – on land, and not the sea! Therefore somewhere along the line the media in its own mind has come to prioritise land-related issues as more important for – and as more impacting – the people than sea-related concerns.

However the sea – in all its enormity – cannot be ignored either. From centuries, the sea has had a certain mystery, a sense of the unknown. Besides, there is no saying even for those who live by it when its calm placid waters can turn into a deathly storm. The media without exception has treated the sea therefore as an entity that is unpredictable, wild and ‘treats’ news related to it in those terms – of the deaths, cyclones, tsunami toll et al.

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.

11.2 Why is media important?

Only media has the potential of taking the message on conservation of coastal and marine biodiversity to the public. And when the public is interested, they would enthuse/persuade/force the policy makers to be interested in the issue. We have seen situations when a question is raised in the Parliament and Parliamentarians discuss a situation based on it being raised through a news report or an op-ed in a newspaper or TV channel. This impact is not possible through any other channel. It is very difficult to raise the same impact by moving a file through the echelons of the government.

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.

MEDIA IS GROWING IN INDIA

The media has been growing in importance in the recent years. According to the Indian Readership Survey 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.

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.

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

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

WHALE SHARK CONSERVATION

Whale sharks are the largest fish in the world. The lifestyle of these warm water giants is an enigma to man. Largely found in the warm waters of Australia, they migrate to India during summers. But surprisingly none knew that this giant creature - whale shark existed on the Indian coastline.

Every year, hundreds of these gentle giants are slaughtered on the shores of Gujarat, Western India. The reason - liver oil - for waterproofing boats and trawlers and now over the past few years money for exporters as shark meat, fat and fin.

This special marine species that was already at stake because of its slow regeneration, was put further under pressure due to its mindless slaughter.

The film Shores of Silence is a conservation effort to gather support to protect these enigmatic giants while offering the fishing community an alternative in the form of whale shark tourism.

The film is used along the coastlines to create awareness among the fishermen who have now become the safeguards for the whale sharks. This film brought about legislative reforms both nationally and internationally. It was the first marine species to be protected under the Indian law.

Shot under extreme conditions and threats from the local mafia, the film took 3 years to complete. This is the first ever and only video documentation of the massacre of whale sharks on the Indian coast.

This film moved the government of India into bringing in legislation and banning the killing of Whale Sharks on Indian shores. The Whale Shark was declared protected under the Indian Wildlife Act- 1972, bringing it at par with the Tiger and the Rhino. This was a landmark move. It was the first marine species to be protected under the Indian law.

In November 2002, at the international CITES meet in Chile, Santiago, a negative voting changed into an overwhelming positive after this film was shown to the delegates - bringing global protection of the Whale Shark and giving the largest fish in the world a new lease of life.

The Film has also been greatly successful in bringing about change in the attitude of fisher folk along the Gujarat coast who have now become their guardians.

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

CATALYSING AWARENESS — HOW MUMBAI'S MEDIA REPRESENTS ITS LEOPARDS

The mass media is said to play an important role in disseminating information about certain issues and highlighting select issue attributes for the public. Since most people derive knowledge, be it about weather updates, cricket scores or terror attacks, from the media, a unique in-depth analysis of three daily newspapers targeted to understand how mainstream media covered news about leopards in Mumbai city.. Media analysis of wildlife conflict reporting has previously been carried out in the context of pumas, sharks and elephants but this study would be the first of its kind in India.

According to some figures, Mumbai is estimated to have a population density of nearly 31,000 people/sq.km. Inside this concrete jungle lies one of the world's largest urban National Parks – the Sanjay Gandhi National Park (SGNP). A recent study suggests that this 120 sq.km park is home to atleast 21 leopards. In the past decade, over 100 leopard attacks on humans have been recorded by the Forest Department. 80% of these have occurred between 2002 and 2004.

This intensive archive search which yielded 140 articles from Times of India (TOI) and 47 articles from regional dailies (RD) like Mumbai Samachar and Maharashtra Times. Formal content analysis indicated interesting trends and conclusions. There was a significant difference between TOI and RD. In general, TOI seemed to be more issue oriented whereas RD favoured event-based reporting. This means that atleast in TOI, there seems to be a rising interest in wildlife issues (confirmed by interviewees).

Some news contain suggestions revolved around rectifying human behaviour (e.g. removal of settlements / 'encroachments'). These newspapers also blamed 'habitat loss' comprising encroachment and infrastructure development, for growing conflict.

The news items also welcomed constructive discussions with wildlife managers and conservationists. Which was an indication of a paradigm shift in the media – from viewing the leopard as a perpetrator of crime they switched to more neutral reporting. A much needed approach given the importance of Leopard conservation from ecological point of view. While the extent of influence that different media exert could differ, but it would certainly help reach a larger audience and garner public support for carnivore, or wildlife conservation in general.

[Source: Bhatia, S., 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>]

TIMELESS TRAVELLER - THE HORESHOE CRAB

A film on one of the oldest living fossils on Earth and possibly the world's most spectacular scientific breakthrough that could rewrite the pages of modern medical history - benefiting nearly 2 ½ billion people.

A relative of the spider and the scorpion this space ship like creature with blue blood holds some of the most fantastic secrets.

The horseshoe crab dates back to 562 million years back and has remained unchanged. Research on the horseshoe crab has revealed that its blood holds the cure for osteoporosis, cancer, diabetes, has the potential to regenerate the tissues of the heart and eyes and can even neutralize HIV and tuberculosis infected cells.

Today the horseshoe crab is facing extinction. Conservation is the prime theme and the film is an effort to gather support and create awareness to protect this endangered species from extinction.

The film generated interest and new research started in India after news snippets were shown. It was used to fight and lobby for the specie and now it is protected under Schedule IV of the Wildlife Act, 1972.

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

BROKEN WINGS

The Indian sub-continent had the highest density of vultures in the world - 85 million in total. However, over the past few years 99% have disappeared - mostly due to the use of the veterinary drug Diclofenac.

The loss of such an important scavenger has had devastating effects - putrefying decomposing carcasses are thought to be the cause of anthrax and rabies outbreaks. The extinction of this species would have global health consequences.

The films were premiered at the British Council in 2006, and have since been broadcast in 15 different languages on the national network - along with special screenings for the Prime Minister and other key politicians.

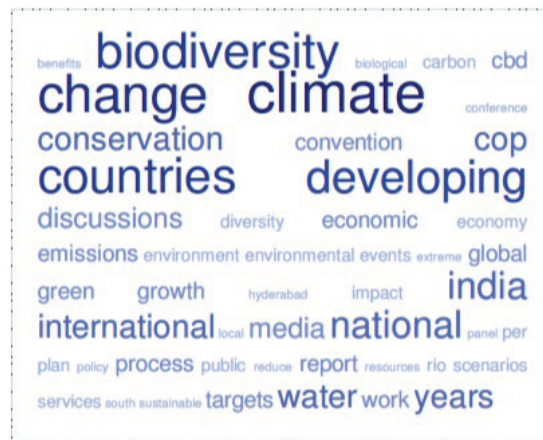
There has been an immediate reaction from the public and national press. The films also appeal to farmers - many, previously unaware of the problem, have now switched to a safer alternative to the drug.

Manufacture and sale of the drug Diclofenac has been banned with immediate effect nationwide - to give the remaining 1% of vultures a fighting chance for survival.

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

11.3 Limitations with the media... and implications for the MPA managers

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.

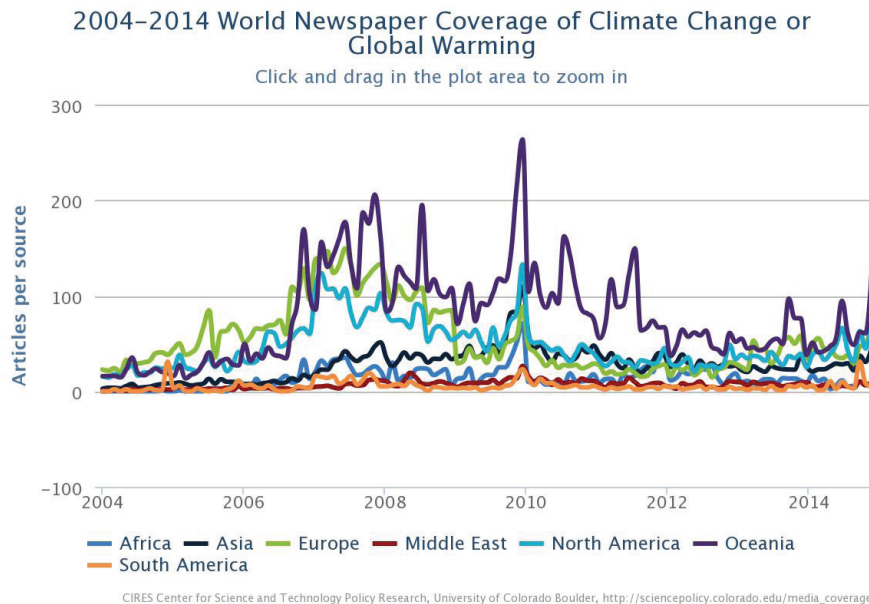


Thus, if you are talking to the media on biodiversity, climate change, developing countries, conservation, conference of parties (CoPs to the Climate Change or Biodiversity Conventions), water, emission targets, etc., you would get media attention quicker than when talking about say coral bleaching or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

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 death of dugongs will need to be linked to biodiversity loss or a CoP coverage 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.

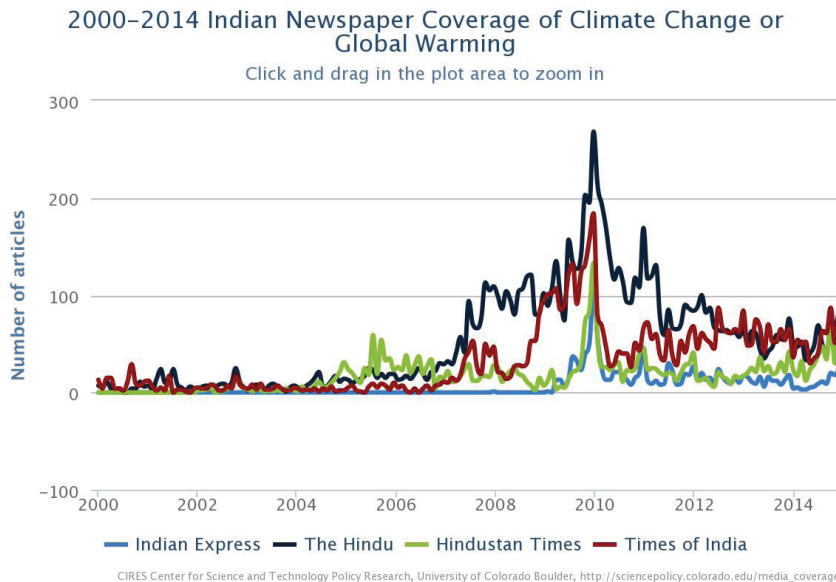


The highest peak for media coverage in all continents was in November-December 2009. It was for the CoP held at Copenhagen in Denmark, when the world attention was focused on whether global

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.

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



So the first limitation is that the media works with catchwords. The second limitation is that there are certain time periods when the media has interest on environmental issues, and you need to catch those periods to ride in with the journalists' attention. There are two other limitations – what you are communicating has to catch the reporter's attention, and it has to further catch the attention of the editor.

11.4 What media wants and covers

11.4.1 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.

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.

11.4.2 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 his publication or improving the TRP of his channel is of prime importance for an editor. He/she is a packager who gets the most interesting stories that increases the impact of his media outlet. So he has to be convinced that the story will increase visibility for

his 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. He 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.

11.5 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.

11.5.1 Identifying key topics of interest to media where the conservation issues can be integrated:

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.

11.5.2 Strategic communication for media relations- Key Principles

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.

FOUR PRINCIPLES:

There are four principles to strategic communication:

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.

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.



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

11.6.1 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.

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



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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 journalist' 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 starts late and extends 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.

11.6.3 Media tour

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.

11.6.4 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.

11.6.5 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.

11.7 Linking to the world with online media

11.7.1 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.

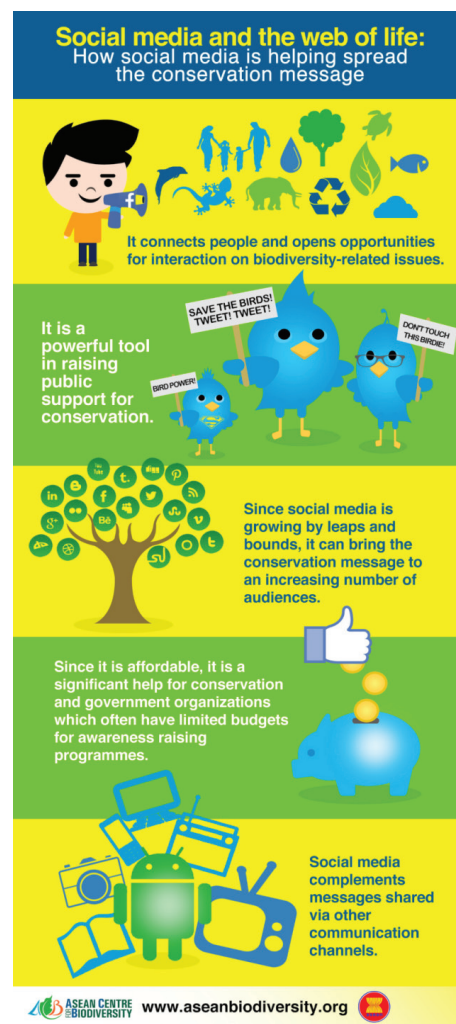
Twitter is micro-blogging that has become internationally important in the recent years. Tweets are short messages – 140 characters long. Their brevity is their impact. Hyperlinks for blogs can be Tweeted. In the recent years, Tweets have become a primary source of information for many journalists.

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.

11.7.2 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.



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/>]

11.7.3 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-WCMC), 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

Managers of coastal and m...
Home
1

Page
Messages
Notifications
1
Insights
Publishing Tools
Settings
Help

SPECIAL CERTIFICATE COURSE
Coastal and Marine Biodiversity and Protected Area Management
for Field-level MPA Managers

Managers of coastal and marine ecosystems in India
Community

Date and Venue of the course

December 5-4, 2015
Add on course on marine biodiversity assessment using SCURA

December 7-18, 2015
Special certificate course

Venue:
Port Blair/Herlock Island, Andaman

About the Organization:
The Wildlife Institute of India (WII) has a mandate to train India's conservation officers. For its Service officers as well as others it will conduct intensive courses on marine biodiversity assessment using SCURA.

Cooperation:
The Wildlife Institute of India (WII) has a mandate to train India's conservation officers. For its Service officers as well as others it will conduct intensive courses on marine biodiversity assessment using SCURA.

Competencies-based curriculum for the field-level MPA managers

The Special Certificate Course is a competencies-based course with a strong emphasis on field-based exercises using participatory methods of training and learning. The training material is developed by a competent team of experts drawn from India, Japan, and other world-class centers bringing to a truly cross-country perspective to the study process of capacity development.

Share

THIS WEEK

21
Post Reach

12
Post Engagement

Recent
2015

Timeline
About
Photos
Likes
More

347 likes +9 this week

21 post reach this week

Reach a new milestone
500 Likes

ABOUT

Status
Photo / Video
Offer, Event +

Write something...

Managers of coastal and marine ecosystems in India

Published by Sarthi Gupta · October 4 at 10:08am ·

When corals are stressed by changes in conditions such as temperature, light, or nutrients, they expel the symbiotic algae living in their tissues, causing them to turn completely white.

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://thestickytongue.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.”

11.8 Dealing with the media during a crisis

Strengthening media relations can help communicating with journalists during crisis situations, (such as an oil slick, cyclonic flooding, etc.). Trust and communication bridges have to be built earlier, and then these can be used during crisis situations.

Remember, a crisis can negate all the good work that you have done in the past; seriously damage the reputation of the institution and the individual; snowball the negatives (i.e., the media will see and report only the negatives and forget about your past achievements); and distort brand recall. Reputation is very difficult to build, but can be lost in an instant in a crisis situation.

When a crisis happens, one of the MPA manager has be the source of information of journalists. There has to be one spokesperson, and more than one person should not speak with the media. This person can either be the director of the MPA, or a person authorised by him to speak with the media. This person should not avoid the journalists. He/she must answer phone calls and meet journalists as and when required. As far as possible, keep a written press release ready, since this will help articulate facts correctly.

This is also the time to tap the journalists the MPA managers have built trust with before the crisis. When a crisis happens, the media immediately places a question mark against your credibility. They would be filtering everything that you say through an “is he/she telling the truth” filter. At that time if you can effectively communicate to the journalist with whom you have built trust, he/she could be your ambassador.

During a crisis the media can destroy you or help you. The media will add on to all the other pressures that you already have during the crisis. However, if the media is not handled properly the other pressures could get worse. In other words, if you mess with the media at the MPA, you will hear from our bosses at the headquarters more frequently. This will further reduce your ability to deal with the crisis.

On the plus side, if you communicate well the media will appreciate your sincerity and truthfulness in dealing with the situation. It can also become a partner by being a channel for information and communication for dealing with the situation. For instance, if you want to evacuate the public from a

location, the media can be the channel to inform the public the need for them to move.

As MPA managers, you must avoid getting ruffled with the media. Do not take media criticism personally. Media is not criticising you because you are Officer X. They are criticising you because you are the officer at the spot at the time of the crisis. If you can turn the situation to your advantage, they will also report Officer X handled the situation well despite the multiple constraints that he/she was facing.

Do not tell a lie. Every journalist develops multiple sources of information and can easily cross-verify what you have said. You will lose the journalists' trust for ever if they realize that you lied during a crisis situation.

Effective crisis communication can help the journalists understand the picture in an as is where is manner; prevent rumour mongering; get the MPA managers on top of the situation, thereby freeing them from dealing with unnecessary complications; and make media a partner in dealing with the crisis. Through the media, the public and policy makers will have a better appreciation of the situation.

To prepare for communicating with the media during a crisis situation, every MPA must a crisis communication plan ready. What are the risks and what is the probability of them happening – high, medium or low – have to be assessed beforehand. Develop scenarios – what if a leak from an oil tanker chokes life in your MPA, or a cyclonic flood submerges one of the islands.

A spokesperson has to be identified and authorised. Needless to say that the spokesperson selected has to understand the crisis management operation and has the latest information on the situation. For this, an internal communication protocol has to be set in place.

The MPA managers should understand the strengths and limitations of various media so that they know which one to use for what effect – cell phones , radio (community/ ham/ national), TV, newspapers, public address systems, e-mail, Facebook, Twitter. Most important – the manager must adapt and be flexible to the situation.

Main Sources:

1. ASEAN Centre for biodiversity (2014). Communicating biodiversity in the era of social media. Retrieved 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
2. Bhatia, S. (2015). Catalysing Awareness — How Mumbai's Media represents its Leopards, Conservation India: Enabeling conservation action. Retrieved from <http://www.conservationindia.org/articles/mumbai-media-leopards>
3. Earthwatch (2015). Bees and Butterflies in a Biodiversity Hotspot. Retrieved from <https://earthwatchunlocked.wordpress.com/2015/05/28/bees-and-butterflies-in-a-biodiversity-hotspot/>
4. Kinver, M. (2014), Selfie-help for conservation areas. BBC Science & Environment. Retrieved from , <http://www.bbc.com/news/science-environment-30435350>
5. Mega Marine Survey of Singapore - Singapore's first Comprehensive Marine Biodiversity Survey! Retrieved from <http://megamarinesurvey.blogspot.in/p/about.html#.Vh-qlvmqqko>
6. Marine Conservation Institute (2015). Celebrating Our Ocean 2015 Meeting - 1.9 million square kilometers protected in 48 hours. On the Tide (The blog of Marine Conservation Institute). <http://blog.marine-conservation.org/2015/10/mpatlas-numbers-on-our-ocean-2015.html>
7. Richards, D (2015). Using Social Media for Environmental Good. HIPPO Reads. Retrieved from <http://read.hipporeads.com/social-media-as-a-conservation-tool/>
8. Riverbank Studios (2014). Films and Documentaries (on Whale Shark/Mangroves). Retrieved on 01st October 2015 from http://www.riverbankstudios.com/films_documentaries.htm
9. Roger (2010). The best biodiversity blogs: reviews and rankings. The Pimm Group. Retrieved from <http://thepimmgroup.org/919/best-biodiversity-blogs/>
10. Shelby, Christina (2015). Conserving Biodiversity with Traditional Knowledge, Women, and Bees. Retrieved from <http://theunfoldingearth.com/traditional-knowledge-bees-women/>
11. Troeng, S (2014). Success of Marine Protected Areas Depends on These 5 Things. humanature – Conservation International Blog. Retrieved from <http://blog.conservation.org/2014/02/success-of-marine-protected-areas-depends-on-these-5-things/>

12. Vishnupriya and Anand Saurabh (2013). Role & Impact of Media in spreading awareness of energy conservation : A comparative study of Print & Electronic media. International Journal of Environmental Science: Development and Monitoring, Vol 4 (3). Retrieved from http://www.ripublication.com/ijesdmvpl/ijesdmv4n3_20.pdf

Further Resources:

1. Bhatia, S. (2013). Understanding the Role of Representations of Human–Leopard Conflict in Mumbai through Media-Content Analysis. - Saloni Bhatia, Conservation Biology. , 2013 Retrieved from http://www.conservationindia.org/wp-content/files_mf/Bhatia-et-al-2013_leopards-and-mass-media_conbio-1.pdf
2. Bodt, T (n.d.). Role of the Media in Achieving a Sustainable Society. Retrieved from, Tim Bodt <http://www.bhutanstudies.org.bt/publicationFiles/ConferenceProceedings/MediaAndPublicCulture/M-21.pdf>
3. Chapman et al (2003). Environmentalism and the Mass Media: The North/South Divide, Chapman et al, Routledge, 2003.
4. Gupta, N. (2014). Can Mass media help in Conserving Mahseer & Riverine Ecosystem? India Wilds. Retrieved from - Nishikant Gupta, 26 JUNE,2014 <http://www.indiawilds.com/diary/can-mass-media-help-in-conserving-mahseer-riverine-ecosystem/>
5. ICRISAT (2012). Media has uncommon opportunities for promoting biodiversity conservation. Retrieved from | <http://www.icrisat.org/newsroom/news-releases/icrisat-pr-2012-media15.htm>
6. Media coverage of nature conservation and protection in Nigeria National Parks. Retrieved from <http://www.academicjournals.org/journal/IJBC/article-full-text-pdf/EFFD8CA11656>
7. Nawab, A. & P. Gautam (n.d.). Otter conservation in India: Can mass media play a role. MoEF. Retrieved from <http://www.moef.nic.in/sites/default/files/nlcp/C-%20Biodiversity/C-37.pdf>
8. Recommendations from the Workshops Communication for Biodiversity. Conservation Education for Sustainable Future – International Conference 18-20 Jan 2005, Ahmedabad. Retrieved from <http://www.ceeindia.org/esf/wk3.asp>.

9. The role of print media in the campaign for Water conservation: a content analysis of the daily nation newspaper. Retrieved from <http://erepository.uonbi.ac.ke/xmlui/handle/11295/3460>
10. UN (2002). Media's Role, Responsibility In Covering Sustainable Development. Retrieved from <http://www.un.org/press/en/2002/ENVDEV619.doc.htm>
11. UNESCO (2015). Media in Support of Sustainable Development and a Culture of Peace. Retrieved from , UNESCO 2015. http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/San-Jose/pdf/Book_UNESCO_Media_and_Development_May_2015_01.pdf

