



Conservation Education and Outreach Activities (Plan 2014-17) Velas-Anjarle, Ratnagiri District Maharashtra

November 2014

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Conservation Education and Outreach Activities (Plan 2014-17)
Velas-Anjarle, Ratnagiri District, Maharashtra

Authors

Laxmikant Deshpande, Sahyadri Nisarga Mitra

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Indo-German Biodiversity Programme (IGBP),
GIZ-India, A-2/18, Safdarjung Enclave,
New Delhi - 110029, India
E-Mail: biodiv.india@giz.de
Web: www.giz.de

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Dr. Konrad Uebelhör, Director, GIZ

Photo Credit

Supriya Jhunjhunwala, Adviser, GIZ-India

Design and Layout

Commons Collective, Bangalore
shibipeter@gmail.com

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List of Acronyms

BMC	Biodiversity Management Committee
BMUB	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
CMPA	Coastal and Marine Protected Areas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MoEFCC	Ministry of Environment, Forests and Climate Change
MTDC	Maharashtra Tourism Development Corporation
NGO	Non-Government Organisation
PBR	People's Biodiversity Registers
RBM	Result Based Monitoring
SNM	Sahyadri Nisarga Mitra
ZP	Zila Parishad

Executive Summary

The Project on participatory Conservation and Management of Coastal and Marine protected Areas in Maharashtra has been undertaken by GIZ in association with the Ministry of Environment, Forests and Climate Change, Govt of India, and the Maharashtra State Forest Department. A pilot phase of this project has been initiated at three locations in Maharashtra: Velas, Anjarle and Kelshi. The conservation education and outreach action plan for these have been developed to contribute to site based activities and research initiatives through participation of local stakeholders for improvement of conservation efforts and sustainable use of biodiversity, and for sustainable planning and management of the CMPAs.

The above mentioned objectives can effectively be met with if all stakeholders are engaged through the principles of prevention, protection and management. The education outreach activities are proposed at two levels – generic with common messages for all stakeholders, and specific with targeted messages for select stakeholders.

The conservation education and outreach plan has been developed with inputs from other related project activities, namely: desk review, stakeholder analysis and rapid biodiversity assessment. As a trust building initiative, SNM conducted three education activities in every village to involve local teachers and students during the project period. A set of education materials have been developed and provided to all schools. These activities helped the SNM team to interact with the schools, identify common issues of their interest with the CMPA and evolve their role in the 2014-17 education and outreach plan.

One of the pilot locations is the stretch between Velas in Mandangad taluka and Anjarle in Dapoli taluka of Ratnagiri district. In 2014, SNM conducted education outreach activities among the local stakeholders. The target groups were schools, Gram Panchayats and villagers.

The activities included creating biodiversity libraries in local schools, celebrating select environmental days with the schools and the villagers, and creating permanent exhibits. This report has been drafted to update the readers on the status of conservation education and outreach activities during May – November 2014. The activities and deliverables can be summarized as below:

No.	Activity Description	Quantity
1	Setting up of biodiversity libraries in schools	11 schools
2	Jigsaw puzzles	100 puzzles
3	Printing of posters	300 posters
4	Printing of banners	50 banners
5	Photo printing and framing	100 photos
6	Targeted activities on at least three special dates	9 events in 3 villages

SNM organized an event on 24th November 2014 with the local schools with the objectives of handing over the developed education outreach material to local schools, discussion with the teachers on appropriate use of the material, collecting feedback from the teachers about the activities conducted and materials developed and a discussion on the way forward. The event was conducted at Zila Parishad 1 Primary School at Kelshi and was attended by the representatives of the project team and local schools. The teachers offered their valuable feedback such as the need for education material in Urdu, a biodiversity library in Urdu and a training workshop for the teachers from Dapoli taluka. A representative set of the education material was handed over to the participating teachers.

Learnings from these activities has helped SNM develop a matrix of stakeholders, issues, messages, media, responsibility, timeline, required resources and assumptions. The matrix will serve as a reference during planning, implementation and evaluation of the education outreach plan for 2014-17. The matrix suggests 40 messages and activities for 12 stakeholders which includes fishermen, homestay and hotel owners and staff, Biodiversity Management Committee, Gram Panchayat, local residents, tourists, conservation NGOs, youth

groups, plantation owners, Forest Department, schools, and media representatives. Responsibility to implement the plan, timeline, and required resources constitute its delivery mechanism. Since these awareness-education activities contribute to site based interventions, their timely implementation is necessary for this plan. Thus, a column of 'assumptions' has been added to the matrix. The matrix suggests that the responsible agency is to conduct awareness activities; however this agency needs support of other stakeholders.

Chapter 1

Introduction



The conservation education and outreach activities have been conducted in the administrative boundaries of three villages: Ajarle, Velas and Kelshi, with focus on coastal and marine biodiversity. They have been developed to complement site-based interventions during the period 2014-2017. It is aimed to build shared action of the stakeholders in planning and management of the CMPA for its sustainability. The target groups were schools, Gram Panchayats and villagers. (The list of the schools that were covered under these activities is attached as annexure 1).

Broad Objectives of Conservation Education and Outreach

1. Focus on creating responsibility among individuals and organizations for role clarity, so that they become active 'stakeholders' in the process
2. Enhance understanding of biodiversity conservation in general; and of specific issues among identified stakeholders
3. Communicate the biodiversity conservation plan evolved through the CMPA project to all stakeholders
4. Develop local leadership with the support of the community for implementation of CMPA management plan
5. Create a strong 'in-situ' network among stakeholders for local action and an 'ex-situ' network to generate support, knowledge and resources for biodiversity conservation
6. Reduce barriers and resistance towards implementation of CMPA activities
7. Pitch for support (financial, technical etc.) beyond the project period as exit action plan
8. Channelize the benefits of CMPA to local stakeholders through conservation education and outreach

Principles of Conservation Education and Outreach



The above mentioned objectives can effectively be met with if all stakeholders are engaged through following principles:

Prevention – of acts and situations that endanger biodiversity

Protection – of existing biodiversity through short-term activities

Management – implement the biodiversity conservation plan through long term activities.

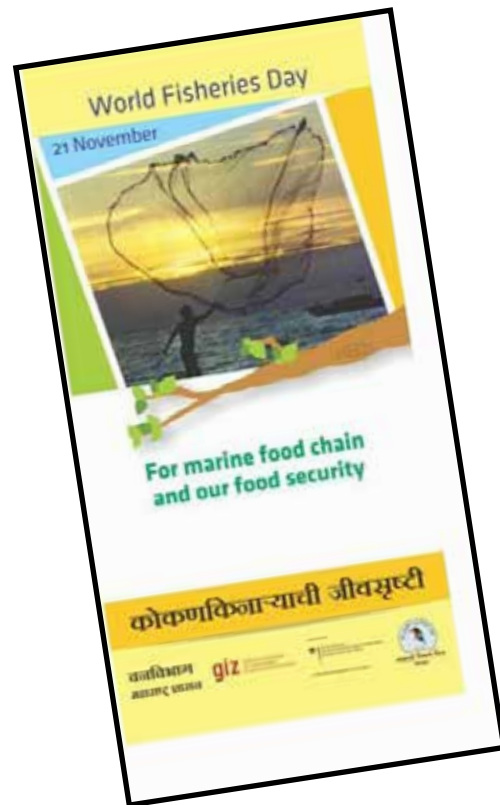
Expected Outcomes and Action Plan

The conservation education and outreach action plan has to be designed such that the following effects on stakeholders are observed over a period of time:

1. Exposure to the message – The messages have to be persistently delivered to the respective stakeholder groups.
2. Messages Retention – An effective outreach of these messages over a period of time will result in the retention of these messages in the minds of the stakeholders.
3. Attitudinal Change – The retention of the messages along with exposure of the stakeholders to the interactive programs would lead to a better understanding of biodiversity conservation and their role in it.
4. Enhancement of Skills – Select stakeholders will gain skills through education and outreach for biodiversity conservation on a long term basis.
5. Behavioral Change - The willingness to participate in biodiversity conservation would translate into concrete short term and long term actions provided the actions are supported by the necessary resources.

Levels of Conservation Education and Outreach

The conservation education and outreach action plan proposes interventions at two levels.



Generic Outreach - A set of generic awareness activities for the entire population to highlight the key aspects and importance of biodiversity. The CMPA project will launch a campaign with the involvement of Gram Panchayats, Forest Department and other local stakeholders to sensitize the local population and tourists to biodiversity and its importance. Some examples of generic outreach are celebration of environmental days at schools, clean up drives by villagers, etc.

Specific Outreach - Development and use of specific awareness activities for priority issues of biodiversity conservation vis-à-vis stakeholders. The specific outreach is aimed to impart skills to initiate or enhance specific actions for biodiversity conservation. Some examples of specific outreach are training on Public Biodiversity Register for the members of Biodiversity Management Committee, training of volunteers, Forest Department officials and veterinarians on turtle rescue and treatment.

Process of Developing Conservation Education and Outreach Action Plan



1. **Desk Review:** The desk review collated existing available information on the Velas-Anjarle coastal stretch, other coastal and marine sites of India, and a few case studies that focus on the status and the management of coastal and marine resources. Results from previous and ongoing research, reports and interventions were also collated. The desk review extracted and summarized information relevant to the better management of coastal and marine protected areas. Secondary sources included previous research papers, newspaper and magazine articles, government reports and other sources of information.

The objective of the desk review was to identify key gaps and to recommend best practices for participatory management of proposed CMPAs. The listed recommendations have been further categorized into short-term and long-term recommendations based on their priority, time and resources required for their implementation. Some of these recommendations are included in the conservation education and outreach action plan.

2. **Preliminary Stakeholder Analysis**
Stakeholders are those individuals or organisations that can affect or can be affected by the project interventions. Stakeholder analysis is a methodical

approach to understand viewpoints of those individuals or organisations that can affect or can be affected by the proposed project. The preliminary stakeholder analysis was conducted to identify stakeholders, examine their likely influences and impacts vis-à-vis CMPA and provide recommendations for their participation in the management of a CMPA. The stakeholder analysis learnings feed into further project activities like research, site based interventions and conservation education and outreach activities.

3. **Networking:** Since its inception, SNM has been networking with various stakeholder representatives from the proposed CMPA site with the objective of engaging them in conservation activities, to seek their support and to understand their concerns in order to evolve agreeable solutions. These stakeholders mainly include Gram Panchayats, elected representatives, Forest Department officials, academic institutes, potential homestay owners, tourists, fishermen, Self Help Groups, youth clubs and few other organized and unorganized stakeholders. The networking includes formal interactions during stakeholder analysis or informal interactions. Networking has helped SNM to seek stakeholders' inputs and to engage them in the suggested conservation education and outreach action plan.
4. **Site Visits:** During the course of the project, a number of site visits were conducted for the stakeholder analysis, trust building education activities and for networking with the stakeholders.
5. **Educational Activities at schools:** As a trust building initiative with the local schools, SNM conducted educational and outreach activities for schools of Anjarle, Kelshi and Velas. SNM celebrated Mangroves Day on July 26, Coastal Cleanup Day on September 20 and Wildlife Week in October with teachers and students. The activities included nature trails, powerpoint presentations, indoor games,



lectures to local teachers, and a beach and village cleaning drive. SNM is in the process of establishing a biodiversity library for every school. Marathi books focusing on various biodiversity aspects have been selected and the procedure initiated to purchase them. SNM has developed a set of posters, environmental day banners, photo frames and jigsaw puzzles in Marathi for use by the schools. Distribution of these materials and an orientation for effective use of the same will be conducted at a later date.

These activities not only provided an opportunity for personal interactions but also offered insights into the school environment, organizational dynamics and inclination of teachers-students for participation in such future activities. The local schools have expressed their support to future education-outreach activities under the CMPA project through a participation letter from their Principals.

6. **Drafting of Conservation Education and Outreach Action plan:** This education-outreach action plan, encompassing all stakeholders and their issues, has been drafted based on the learning outcomes achieved by the desk review, the preliminary stakeholder analysis, site visits, and assessment of the situation and needs. The action plan has vision, goals and objectives as the guiding principles.
A two pronged action plan which is 'generic' (development of branding materials as well as for publicity) and 'specific' (issues

relevant to specific stakeholders) has been proposed to converge important biodiversity conservation issues, messages, media and possible implementing agencies.

Delivery Mechanism of Conservation Education and Outreach

Achieving intended outcomes from the proposed conservation education and outreach action plan depends on the efficiency and effectiveness of its delivery mechanism. To achieve maximum desired outputs within available resources, a set of guidelines will be followed throughout the project.

Generic Guidelines: All education and awareness activities of the project will adhere to following generic guidelines.

- a. The organization implementing the education outreach activities to nominate a coordinator to ensure timely implementation of the planned activities. The coordinator to communicate all issues and progress with the GIZ and the Mangrove Cell on a regular basis.
- b. GIZ guidelines to be followed by the responsible agency during development and dissemination of the communication material.
- c. Logos of project partners to be used in every communication material.
- d. Prototype of each communication media to be approved by the Communication and PR Expert, GIZ.
- e. Professional graphic designers or agencies will be involved in designing of each media element.
- f. Project Manager will brief field staff on proper transportation, storage and effective use of the communication material.
- g. Project staff will collect feedback on the effectiveness of communication material and activities from the target audience through formal and informal mechanisms to the fullest extent possible. The feedback will be collected through Result Based Monitoring method (RBM) as planned by GIZ.
- h. Reprinting, copying, dissemination of the communication material to be done only

after obtaining the permission of GIZ and the organization implementing the education outreach activities.

- i. Content and images of the communication material to be developed based only on project activities and reports, other official documents, brief by the project team, subject experts or other authentic sources with due permission.
- j. No content and images in doubt to be used without verification by the core project team or subject experts recommended by the Project Manager.
- k. In case of electronic media such as websites, images of high resolution to be used to avoid pixilation.
- l. Process of communication material to abide by local, state, national rules and legislations.
- m. Process of communication material to respect cultural, religious sentiment of communities; specially in case of using humor.

The communication media mentioned in the stakeholders-messages-media matrix will adhere to specific guidelines of GIZ. For this, the agency designing the material is to coordinate with the Communications Department of GIZ to ensure adherence to GIZ guidelines.

Assumptions of Conservation Education and Outreach

This conservation education and outreach plan has been developed based on the following assumptions:

1. Many awareness activities are linked to site based interventions. The awareness activities have been proposed to strengthen implementation of site based interventions. Hence while finalizing the timeline and responsibility of these awareness activities, the CMPA project's operational plan needs to be referred to.
2. The plan suggests a responsible agency to conduct awareness activities; however this agency will need support of other stakeholders. We have suggested the primary responsible agency along with supportive stakeholders.
3. Many activities have been proposed for both

year 2 and year 3. This is considering the fact that activities in year 2 will create support among stakeholders and new participants will register for year 3 activities. Also, year 3 activities may be used for reinforcement and advanced training.

4. For select key issues, Gram Panchayats is to pass a resolution to institutionalize conservation initiatives. This may be considered as an indicator of success of the initiatives.

Process of Conservation Education and Outreach Activities

The conservation education and outreach activities have been conducted through following pre-determined process.

1. Listing of all schools and colleges in Anjarle, Kelshi and Velas
2. Formal communication with all schools through mail, followed by telephonic conversation with the Principals to seek their appointments
3. Meeting with Principals to update them about proposed CMPA and to invite organizational participation in conservation education and outreach activities
4. Obtaining formal communication from the schools and colleges expressing organizational support and participation in conservation education and outreach strategy
5. Exploring various platforms/events such as meetings, trainings, seminars and other events for teachers and students
6. Creating biodiversity libraries in the schools
7. Development of the education and outreach material
8. Making a detailed note on efficient and effective use of the developed education outreach material
9. Conducting an event to hand over the developed material and the library books to the schools, to seek teachers' feedback on the developed material and to invite their suggestions on the conservation education and outreach plan for 2014-17
10. Conducting events in the villages with Gram Panchayat and villagers.

Chapter 2

Conservation, Education and Outreach Activities and Materials

6



Biodiversity Library

The biodiversity library is aimed to empower the teachers and students with information and activities on biodiversity, threats to it and its conservation. The library books focus on the

following themes – plants, insects, amphibians and reptiles, birds, mammals, fish and other aquatic fauna, eco-friendly celebration of festivals, environment education, coastal and marine ecosystems, ecosystem services, public biodiversity register, community conservation, eminent naturalists etc.

Jigsaw Puzzles

Sets of four jigsaw puzzles on the flagship and indicator species of local biodiversity have been developed for the students of pre-primary and primary schools. The species include Mudskipper, Starfish, Olive Ridley turtle and White bellied sea eagle. Each puzzle contains



brief information about the species. Additional information about these species and supporting educational activities to reinforce learning has been provided to the schools in the note on education outreach material.

Banners



Sets of five banners have been developed for display in schools and villages for mass awareness on select environmental days based on the following themes – World Environment Day, International Day of Mangrove Conservation, World Oceans Day, World Turtle

Day, and Wildlife Week. Each banner contains the title and date of the eco-day, an image and a message highlighting its importance. The banners are made of waterproof flex material. Additional information on the eco-days has been provided in the educational note provided to the schools.

Posters

Sets of fourteen posters highlighting coastal and marine habitat, biodiversity and conservation measures have been developed for permanent display in schools. The poster themes include Konkan coastline, starfish in sandy habitat, mangrove apple, puffer fish, mudskipper, fiddler crab, hermit crab, cowrie shell, oyster, olive ridley turtle, white bellied sea eagle, dolphin, otter and role of citizens in biodiversity conservation. Each poster contains a title, an image and a brief informative text. The posters are made of waterproof flex material. Additional information on the posters has been provided in the educational note provided to the schools.

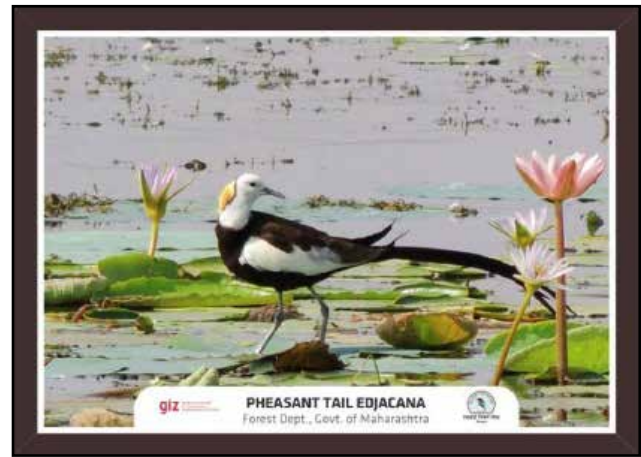
Photo Frames

Sets of ten photo frames covering coastal bird species have been developed for permanent display in the schools. The bird species include resident, local migrant and distant migrant species.



The species selected for photo frames are:

1. Black capped kingfisher
2. Brahminy Kite
3. Oriental Dwarf Kingfisher
4. Common Kingfisher
5. Greater Crested Tern
6. White Bellied Sea Eagle
7. Pied Kingfisher
8. Pheasant Tailed Jacana
9. White Throated Kingfisher
10. Stork billed kingfisher



Additional information on the species has been provided in the note on education and outreach material for reference to the schools.

Education Outreach Activities

SNM celebrated three environmental days, namely, International Mangrove Day (26th July 2014), International Coastal Cleanup Day (20th September 2014) and Wildlife Week (2-8 October 2014). The activities involved school teachers, students and villagers as the participants. In addition to the three eco-days, SNM conducted a number of outreach activities on CMPA on various occasions. (The activities have been summarized in annexure 3)





Handing over the Education Outreach Material to Schools

SNM organized an event on 24th November 2014 with the local schools with the following objectives:



1. Handing over the education outreach material to the local schools
2. Discussion with the teachers on appropriate use of the material
3. Collecting feedback from the teachers about the activities conducted and material developed

Discussion on the way Forward

The event was conducted at ZP 1 Primary School, Kelshi and attended by the representatives of the GIZ, SNM staff and volunteers, and the school teachers.

Ms. Shweta Mujumdar welcomed the invitees and invited the dignitaries to light a lamp. She proceeded with a brief on the CMPA project – its objectives, activities and expected outputs. This was followed by a brief from Mr. Bhau Katdare about SNM, its key ongoing activities and importance of the CMPA for biodiversity conservation. Ms. Supriya Jhunjhunwala interacted with the participants about GIZ, its objectives and activities in India, such as energy conservation initiatives, climate change mitigation project and skill building activities. She explained the CMPA project background and appealed to the schools to continue their participation in the project. Mr. Laxmikant Deshpande discussed the education material such as posters, banners, photo frames and jigsaw puzzles developed under the CMPA project. He touched upon appropriate use of the material and various educational activities based on the material and informed the participants about the detailed note prepared by SNM to ensure the efficient and effective use of the material. He presented a few case studies of system and sustainable change by a few schools with a few examples. Mr. Kamble



(P D Vidyalay, Kelshi), Mr. (ZP1 School, Kelshi) and Mr. Maniyar (ZP Urdu School, Kelshi) thanked the GIZ and SNM for various activities and education material under the CMPA project. They summarized various activities conducted by SNM and assured the participation of their schools. The teachers offered their valuable feedback such as the need of the education material in Urdu, biodiversity library in Urdu and

a training workshop for the teachers from Dapoli taluka. Ms. Supriya Jhunjhunwala, GIZ agreed in principle with the participants to implement these suggestions in next phase of the CMPA project. A representative set of the education material was handed over to the teacher participants. The program concluded with a group photograph and vote of thanks from Ms. Shweta Mujumdar.

Chapter 3

Conservation Education Outreach Matrix

A detailed matrix has been developed that outlines stakeholders, issues, messages, media, responsibility, timeline, required resources and assumptions. The matrix will serve as a reference during planning, implementation and evaluation of the education outreach plan for 2014-17.

The plan may be modified based on the discussions between CMPA project stakeholders and participating agencies. Depending on the local issues, different messages and activities have been proposed for locale-specific stakeholders.



Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Fishermen Fish waste on beaches encourage ghost crabs that threaten turtle eggs and hatchlings	Kelshi Anjarle Velas	Dispose the fish waste in assigned composting area	Individual and community meetings with fishermen on the beach. Poster on appropriate disposal practice	CMPA Project Staff with Gram Panchayat	Y2/Y3 after compost unit is activated	An enclosed area assigned by Gram Panchayat at convenient spot to compost fish waste in all villages. Compost facility and operator in place before this awareness activity is conducted	CMPA project to develop compost unit and display posters in public space or entry point to the beach for every village.
Broken nets are discarded on the beach, affecting coastal fauna	Kelshi Anjarle	Disposal of broken nets into assigned community waste bins	Poster on common entry points to the beach. Community meetings	CMPA Project Staff with local NGO	Y2 & Y3 - When fishing is resumed after Shraavan (monsoon). Second round of awareness when fish nets are repaired locally	Content, images, designing & printing agency	CMPA project to develop community waste bins and collection facility and display area for posters in public spaces or at entry point to the beach for every village
Turtles are caught in nets and injured.	Anjarle	Follow SNM's standard rescue protocol like - Do not cut limbs of entangled turtles. Carry it to the shore. Contact Forest Department/SNM. Guard the turtle from any threats until Forest Department/SNM team arrives etc.	Community meetings. Posters.	CMPA Project Staff with local NGO	Y2 and Y3 in Shraavan when fisherfolk are available	Content, images, designing & printing agency.	Forest Department to develop turtle rescue and treatment facility and CMPA project to develop display area in public spaces or at entry point to the beach for every village
Home Stay Owners							

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Principles of ecotourism need to be followed to the extent possible. Homestays need to register with the MTDC.	Kelshi Anjarle Velas	Ecotourism - what, why and how. Hospitality skills. Details of MTDC home stay schemes and registration process	Training on ecotourism and MTDC approved homestay model	Local NGO with MTDC	Y2 and Y3 during monsoon or months of low tourist visits	Subject experts. Document of the MTDC scheme. Take away material for reinforcement of discussions	MTDC collaborates with the CMPA project to promote homestay model
Management of solid waste	Kelshi Anjarle Velas	Dry waste must be segregated and deposited with the authorized agency for recycling.	A session as part of the ecotourism training	Local NGO with MTDC	Y2 and Y3 during Turtle Festival and during peak tourist season	Subject experts. Venue. Projection equipment. Other logistics.	Dry waste collection system to be implemented by Gram Panchayats with assistance from CMPA project
Increase energy efficiency of homestays	Kelshi Anjarle Velas	Install LEDs Install improved smokeless stoves	A campaign on energy efficiency. The campaign to include providing LEDs and improved smokeless stoves, posters, community interactions, sessions in trainings for homestay owners	Local NGO	Y2, Y3	LEDs, improved smokeless stoves, campaign material	Each participant homestay to sign a pledge to use and maintain LEDs and improved stoves on a permanent basis
Biodiversity Management Committee (BMC)							
Management of solid waste	Kelshi Anjarle Velas	Encourage 3R Principle. Dry and wet waste must be segregated and deposited with the agency authorized by Gram Panchayat for recycling. Wet waste to be composted in designated facility.	Awareness campaign. Poster on Do's and Don'ts.	Local NGO with Gram Panchayat	Y3	Identified composting units	Dry waste collection system to be implemented by the BMC with assistance from the CMPA project. Common compost unit to be installed for waste from hotels, homestays and families who do not have compost units

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
	Kelshi Anjarle Velas	Stop use of plastic bottles	A campaign for plastic-free zone. The campaign to include providing alternatives, posters, community interactions, sessions in schools and Gram Panchayat etc.	Local NGO	Y2, Y3, Y4	Alternative system and material to provide water to tourists	Gram Panchayat to approve the alternative system and pass resolution banning plastic bottles.
	Kelshi Anjarle Velas	Stop use of plastic bottles	A campaign for plastic-free zone. The campaign to include providing cloth bags, posters, community interactions, sessions in schools and Gram Panchayat etc.	Local NGO	Y2, Y3, Y4	Cloth bags to replace plastic bags	Gram Panchayat to pass resolution banning plastic bags.
Illumination disturbing turtle nesting	Anjarle	Direction of lights to be changed towards village, away from the beach. Illumination must be of focussed/spot type. Lights on beach must be switched off or restricted during turtle breeding season	Awareness campaign. Poster on D'o's and Don'ts.	Local NGO with Gram Panchayat	Y2 & Y3 before turtle nesting season	Poster	Gram Panchayat to pass resolution in Y3/Y4 to support the campaign
Tourists							

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Maintain code of conduct on the beach and in the villages	Kelshi Anjarle Velas	Do's and Don'ts for safety, cleanliness, general behaviour. Locations of interest.	Poster in the courtyard/lobby of homestays and hotels, and in Nature Information Centre	Local NGO	Permanent exhibition	Framed posters	Nature Information Centre to be developed and must assign space for this poster during its development.
Maintain code of conduct during Turtle Festival	Velas	Do's and Don'ts for safety, cleanliness, general behaviour. Locations of interest	Orientation to participants by homestay owners, hotels and Turtle Festival organizers. Posters	FD staff, Turtle Festival organizing committee	Y2, Y3 and Y4 during Turtle Festivals on routes to the beach and on the beach	Framed poster. Printed guidelines for reference.	Gram Panchayat with Forest Department to assign space to display the exhibit
To enhance understanding about biodiversity and CMPA Project	Kelshi Anjarle Velas	Flagship biodiversity species, locations, routes and list of eco-guides with contact number	Many-fold brochure for tourists	Local NGO	Y2, Y3 and Y4 during Turtle Festivals. To be provided to tourists by the premise owners	Images, content, designing and printing agency	Cost of brochure to be included in homestay charges. Identification and marking of routes required
	Kelshi Anjarle Velas		Posters exhibition	CMPA Project Staff	Y2, Y3 and Y4 during Turtle Festivals. To be provided by the CMPA staff and schools	Poster sets and permission from Gram Panchayat for display	Coastal biodiversity poster set developed in Y1 to be used. New poster sets on mangrove ecosystem to be developed in Y2.
	Anjarle Velas		Nature Information Centre with posters, signages, clay models	Local NGO with Forest Department and Gram Panchayat	Development in Y2. Operational in Y2/Y3	Space. Building. Necessary fittings. Subject experts, designers and printing agency for posters, models and takeaway. Staff for management. Operational manual.	Infrastructure by Forest Department/Gram Panchayat, content development by local NGO, management by local SHG

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
	Velas		Takeaway products that will carry conservation messages on them	Local NGO	Y2- 2 products Y3- 2 products	Production unit, designing agency, team for marketing, space for storage, transportation facility, administrative team	Funding from GIZ or CSR funds from the corporate sector
		Updates on Turtle Festival and CMPA project activities	New website or additional link on existing websites	Local NGO	Y2	Webspace. Designer. Programmer.	The website/weblink to be periodically updated
Gram Panchayat							
To enhance understanding of importance and role of Biological Diversity Act 2002	Kelshi Anjarle Velas	Role of BMC, PBR and stakeholders in biodiversity conservation.	Training 'BMC & PBR- Why, What, How'	Local NGO with Biodiversity Board, Forest Department, CMPA staff, Gram Panchayat, and teachers	Y2	Venue. Projection facility. Other infrastructure. Takeaway Marathi manual for participants.	Partnership with Biodiversity Board to be established. Forest Department, CMPA project staff, Gram Panchayat, teachers and local NGOs to participate in the training
Local Residents							
Solid Waste Management	Kelshi Anjarle Velas	Segregate and deposit waste to the authorised SWM agency	SWM Campaign to appeal to citizens to use SWM system and practice. Campaign to include interactions in clusters, display of posters at public places and screening of films/ documentaries/ animations during public events, demonstrations etc.	Local NGO with Gram Panchayat	Y2/Y3 depending on the implementation of SWM system	Awareness material like posters, films, documentaries, demonstration plots	Gram Panchayat to authorise agency for collection and disposal of garbage on a regular basis

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Beach management - importance and protocol	Kelshi Anjarle Velas	Do's and Don'ts - Generic year round practices and specific precautions during the turtle breeding season (for e.g. illumination, vehicular movement, waste management, encroachment etc.)	Awareness campaign. Campaign to include interactions in clusters, display of posters at public places. The campaign may be conducted separately or clubbed with SWM campaign.	Local NGO with CMPA staff	Y2 & Y3 before turtle nesting season	Awareness material like posters. Printed guidelines for reference	Gram Panchayat to pass resolution with beach management guidelines by the end of this campaign
To enhance understanding about biodiversity and CMPA Project	Kelshi Anjarle Velas	Flagship species. Ecosystems and Habitats. Public Biodiversity Register. Citizens role in biodiversity conservation.	Rented mobile van with displays, films, hands on activities etc.	Local NGO	Year 2 development and pilot awareness programs. Y3 & Y4 regular programs	Mobile van, operational staff and infrastructure, images, designing, printing and installation agency	The mobile van will cease to operate beyond the CMPA project unless it receives additional funding to continue its activities
Enhance understanding of the mangrove ecosystem	Kelshi Anjarle Velas	Diversity of mangroves. Ecological importance. Associated fauna. Threats. Conservation.	Poster series of 6-8 posters	Local NGO	Year 3	Images, designing and printing agency. Translator for Urdu sets.	Same posters will be used during Turtle Festival, eco-days and other popular events to sensitize other stakeholders. The same posters set to be used for schools. Urdu set may be developed for Urdu schools.
Conservation NGOs							

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Wildlife rescue and rehabilitation protocol rules, protocol	Kelshi Anjarle Velas	Inform the Forest Department/ veterinarians about wild animals in distress and form a team of volunteers in each village for efficient rescue, transportation, treatment and rehabilitation	Training by subject experts, veterinarians and Forest Department along with protocol manual .	Local NGO with Forest Department	Y2 & Y3	Resource persons and infrastructure	Permission and participation from the Forest Department to be ensured. Rescue team comprising of the participants to be formed from the training participants
Protocol for collection of turtle eggs and hatchery management	Kelshi Anjarle Velas	Guidelines for hatchery development and management. Protocol to translocate turtle eggs to hatchery and to store and guard eggs. Guidelines for release of hatchlings.	Training of Forest Department staff, local NGO and volunteers by subject experts	Local NGO	Y2 before turtle nesting season	Protocol manual/ brochure with relevant contact details	A brochure/manual in Marathi to be developed and distributed to the training participants.
Youth Groups and other organised forums							
Encourage livelihoods through ecotourism	Kelshi Anjarle Velas	Ecotourism partially supports livelihoods. Content to focus on local biodiversity, heritage and locations,	One time training and regular mentoring by local NGO. A guidance manual/books to be discussed and provided to the registered youth	Local NGO	Y2 & Y3	Subject experts. Images and content, designing and printing for manual. Books on biodiversity.	Some participants to register for mentoring as eco-guides based on their interest level and selection criteria drafted by the local NGO. Follow up workshop suggested in Y3 if more youth show interest in the workshop or if Y2 training participants need higher level of training. Nature trails must be marked. If Nature Information Centre is developed, area map with biodiversity locations to be displayed there.

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Plantation Owners Elimination of nests by the owners because of bird attacks and acidic dropping affecting produce during the nesting season	Kelshi Anjarle	Do not eliminate nests as sea eagle and vultures are endangered, protected by law and contribute to eco-tourism, offering income to locals through tourists	Individual discussions with plantation owners. Distribution of awareness leaflet with information and relevant contact details	CMPA Project Staff with local NGO	Y2 & Y3 during the breeding season	Leaflet. Registration book to note details of the nests and plantation owner	CMPA project to develop display area in public space or entry point to the beach for every village.
Issue Spotting stray and injured turtles on the beach	Location Ve Kelshi Anjarle Velas	Message/Content Contact Forest Department and SNIM. Guard the turtle from any threat until Forest Department/SNIM team arrives	Media Poster display at public places. Individual discussions.	CMPA Project Staff with local NGO	Y2 & Y3 twice in a year	Posters. Logistics to display posters	CMPA project to develop display area in public space or entry point to the beach for every village.
Forest Department							

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
Appropriate construction and management of turtle rescue and treatment facility	Location still under consideration by the Forest Department	Appropriate design to construct along with guidelines to manage turtle rescue and rehabilitation facility	Training on efficient construction and management of turtle rescue and treatment centre focussing on - Means and methods - Medical treatment - Release procedure - Maintenance of rescue centre A manual to be developed and distributed among participants	Local NGO	Y2	Manual on turtle rescue and treatment facility.	Forest Department to construct turtle rescue and treatment centre.
Schools (Teachers and Students)							
Enhance understanding of importance of local biodiversity and role of students-teachers in biodiversity conservation	Ve Kelshi Anjarle Velas	Flagship species. Ecosystems and Habitats. Developing School Biodiversity Register. Ways to contribute to biodiversity conservation.	Teacher Training for high school teachers on process to form and manage nature clubs, and nature education activities	Local NGO	Year 2 & 3	Books and manuals. Subject experts. Infrastructure.	Each participant school to form a nature club that will be supported and monitored by the local NGO. Y3 workshop will be follow up cum advanced training.

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
	Ve Kelshi Anjarle Velas	Flagship species. Ecosystems and Habitats. Developing School Biodiversity Register. Ways to contribute to biodiversity conservation.	Nature Club for high school students with bi-monthly activities on select biodiversity themes- coastal flora and fauna, marine biodiversity, terrestrial avian diversity, terrestrial flora, butterflies and other insects, eco-friendly festivals, photo-documentation, school biodiversity register. Total 10 sessions considering the academic schedule and eco-days. Last activity to be felicitation of the participant schools, teachers and students.	Local NGO	Year 2 & 3	Books and manuals. Subject experts.	The activities will be conducted for select students who will share the learning with other students through a Green Board. Outputs of these activities will feed into the PBR of each village. Felicitation function to be organized in Y4.
	Ve Kelshi Anjarle Velas	Flagship species. Ecosystems and Habitats. Developing School Biodiversity Register. Ways to contribute to biodiversity conservation.	Games. Total 6 games to be developed and disseminated among schools.	Local NGOs	Y2 - Y3 games Y3 - Y4 games	Production facility, designing agency	

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
	Kelshi	Books, articles, magazines on biodiversity-importance, threats, conservation efforts, role of schools and students.	Book Club for Urdu school	Local NGO	Y2	Translator, permission from the authors to translate original material to Urdu, designing and printing agency.	Available material from Marathi and Urdu to be translated. Books to be purchased from various sources.
Marine Biodiversity - flagship species	Ve Kelshi Anjarle Velas	Unique species in marine ecosystem of Konkan region	Photo frames for display in schools and homestays	Local NGO	Year 2	Images, designing, printing and framing agency	Same frames will be used during Turtle Festival, eco-days and other popular events to sensitize other stakeholders.
		Mangrove ecosystem of Konkan region	Poster sets on mangroves				
AV and Print Media							
CMPA project and its achievements.	Velas	Coastal biodiversity, threats and CMPA activities for its conservation. Role of media in biodiversity conservation.	One day workshop	Local NGO with CMPA staff	Year 4	Logistics	BMC members to attend the workshop. Participants to include representatives of local media and state-level media representatives from newspapers, TV channels, magazines etc. actively covering biodiversity issues

Issue	Location	Message/Content	Media	Delivery Mechanism			Assumptions
				Responsibility	Timeline	Required Resource	
CMIPA project and its achievements.	Velas	Coastal biodiversity, threats and CMIPA activities for its conservation. Role of media in biodiversity conservation.	One day workshop	Local NGO with CMIPA staff	Year 4	Logistics	BMC members to attend the workshop. Participants to include representatives of local media and state-level media representatives from newspapers, TV channels, magazines etc. actively covering biodiversity issues
Stakeholder Representatives (All of above)							
Sustainability of CMIPA project beyond its period and felicitation of active project participants	Velas	Continue select activities beyond project period	Half day event	CMIPA staff	Year 4	Logistics, Awards/Certificates	Based on the resources shared by GIZ, Forest Department and other stakeholder representatives, some activities will continue beyond the project period.

Annexure 1
List of Schools for Conservation Education and Outreach Activities

	Village	School Name	Teacher Name	Phone	Boys	Girls	Total								
1	Kelshi	P. D. Vidyalay	Mr. Takbhate	8605229448, 02358-287224	289	298	587								
			Mr. P. M. Kamble	9763965478											
2		Z. P. Kanya Shala	Ms. Yogita Gujar	9881956677	-	38	38								
			Ms. Kalyani Guhagarkar	8308442377											
3		Z. P. Shala No. 1	Mr. Jeevan Surve	7350756197			149								
4		Z. P. Urdu school	Mr. Nabi Rasul Lalsaheb Momin	9657100212	75	61	136								
5		Kelshi English Medium School													
6		Anjarle	M. K. English School	Mr. N. D. Dhoble	9763557157 9405360573	90	100	190							
									7	Z. P. No. 2	Mr. Jitendra Surve	8605027396	6	5	11
									8	Z. P. No. 1	Ms. Snehal Joshi	9422482729			25
Mr. Mehaboob Pathan		9404774409													
9	Z. P. No. 3	Ms. Jayashree Magadum	9421143689	14	13	27									
10	Velas	Z. P. School	Mr. Daripkar	7744878986 02350-220555	38	32	70								
11		Z. P. School, Narayan Nagar	Mr. Sudhir Bhusara				22								

Annexure 2

A set of the books was been handed over to the schools through a formal function attended by the representatives of the GIZ team and teachers. The biodiversity library for high schools includes following books:

Book	Author
Dosti karuya pakshyanshi	Kiran Purandare
Chala Prani Sangrahalayat	Mamata Pandya, Nina Raghunathan
Nisarg Shikshak	Usha Gogate
Pakshi - Panatlitale	Kiran Purandare
Pakshi - Aaple Sakhe Sejari	Kiran Purandare
Maharashtratil Phulpakre	Dr. Raju Kasambe
Chandukaka	Neelinkumar Khaire
Jalchar Prani	Shailaja Grab
Sastan Prani	Shailaja Grab
Saraptnare Prani	Shailaja Grab
Wagh	Vilas Gogate
Saap	Neelinkumar Khaire
Bharatatil Sankatgrast Praani ani Tyanche Samrakshan	S M Nair
Saagar Vidnyan	A N P Umakutty
Aapla Zaad	Pranab Chakravati, Smita Chakravarti
Kasav ani Magarinche Jag	Shailaja Grab
Kitakanche Adbhut Jag	Harindar Danoa Motihar
Grishma Rututil Spardha	Radha N Khmbadkone
Zaadachi Bhet	Martty
Aushdhi Vanaspati	Dr. Sudhanshukumar Jain
Bhartiya Pakshi	Dr. Salim Ali, Laik Phatehali
Jalsamraat Maase	Dr. Kishor Pawar, Nalini Pawar
Kathaa Kokank Kinaryaachee	Dr. Prakash Gole
Vanaspati Shastraateel Vidnyaanprakalp	Bhalchandra Mayekar
Yamdootee Tsunami	G. B. Sardesai
Aaplee Abhayaaranye	Sureshchandra Warghade
Dr. Salim Ali	Veena Gawankar
Maanoos ani Zaad	Nilu Damle
Eka Ranvedyaachi Shodhyaatra	Krushnamegh Kunte
VidnyaanYaatre - Madhavrao Chitale	A P Deshpande
VidnyaanYaatre - Dr. Jayant Naralikar	Dr. Vijaya Wad
VidnyaanYaatre - Dr. Madhav Gadgil	A P Deshpande
Deshi Vruksha	Dilip Kulkarni
Nisargayan	Dilip Kulkarni
Saagari Kaasav Samrakshan Samvardhan	Bhau Katdare, Ram Mone

The biodiversity library for primary schools includes following books:

Book	Author
Apli Abhayaaranye	Sureshchandra Warghade
Udyogee Wha	Aravind Gupta
Gaani paakhraanchi Gaau	Durga Bhagwat
Baal Jaatak	Durga Bhagwat
Kaavlin Baai ani Tichi Pille	Madhuri Talvalkar
VidnyaanYaatre – Madhavrao Chitale	A P Deshpande
VidnyaanYaatre – Dr. Jayant Naralikar	Dr. Vijaya Wad
VidnyaanYaatre – Dr. Madhav Gadgil	A P Deshpande
Dr. Salim Ali	Veena Gawankar
Maanoos ani Zaad	Nilu Damle
Eka Ranvedyaachi Shodhyaatra	Krushnamegh Kunte
Nisargayan	Dilip Kulkarni
Saagari Kaasav Samrakshan Samvardhan	Bhau Katdare, Ram Mone

Annexure 3
MPA outreach activities conducted by SNM

Date	Event	Place	Description
21st Jun 2014	SNM documentary screening at M. K. English School	Anjarle	Interaction with students to make them aware of marine turtles and other local biodiversity followed by a question-answer session
11th Jul 2014	Meeting with all school principals	Anjarle, Velas, Kelshi	Meeting the school principals to make them aware of the CMPA, GIZ and planned activities for the start-up phase.
17th Jul 2014	Lecture in teachers workshop	Ade	Addressing a monthly common meet of all teachers arranged by the Education Department to make them aware about CMPA, including environmental problems and solutions through regular curriculum, and the need for planned conservation education outreach program for three years.
25th Jul 2014	International Mangrove Day	Anjarle, Kelshi	Students nature trail to mangroves to introduce them to various species, ecological importance, local usage, threats and possible ways to protect them
26th Jul 2014			
19th Sep 2014	International Coastal Cleanup Day	Anjarle, Kelshi, Velas	Beach and village clean-up were arranged with the participation of local residents, students and Gram Panchayats. School rallies to spread awareness about clean up and importance of waste management in conservation of local biodiversity were conducted at Anjarle and Velas
3rd Oct 2014	Wildlife week	Anjarle, Velas	Interactive sessions with students about wildlife conservation. The sessions included screening of films and interaction with the experts
24th Nov 2014	Distribution of education outreach material among schools	Kelashi	Representatives of local schools were invited to receive the conservation education outreach materials like books, jigsaw puzzles, posters, photo frames and banners

The CMPA Project

The project 'Conservation and Sustainable Management of Coastal and Marine Protected Areas' (CMPA) is a project of the Indo-German technical cooperation. It is funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and implemented by the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India, and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of BMUB.

Established to support the achievement of the Aichi targets of the Convention on Biological Diversity, the Project's overall goal is to contribute to conservation and sustainable use of biodiversity in selected areas along the coast of India. Taking into consideration the economic importance of the coastal zone for large segments of the population, the Project's approach is people-centered, thus ensuring the support for conservation by those depending on coastal ecosystems.

Conservation Education and Outreach Activities (Plan 2014-17) Velas-Anjarle, Ratnagiri District Maharashtra

November 2014

Implemented by

giz
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