



THE INTERNATIONAL YOUTH FORUM GO4BIODIV

THE FUTURE LIES IN THE BLUE AND IN THE YOUNG

Our Planet is blue: marine areas cover more than 70% of the surface of the Earth. And our planet is young: Over 50% of the earth's population is under 29. So the future of this earth lies clearly in the blue and in the young. Reason enough to give both of them a voice.

Photo: Pavan Sabbithi



THE FORUM: COASTAL AND MARINE BIODIVERSITY FOR SUSTAINING LIFE AND LIVELIHOODS

The International Youth Forum Go4BioDiv brings together young dedicated people from all over the world to express their views on the 'Conservation of coastal and marine biodiversity for sustaining life and livelihoods'. It offers the opportunity to share on-the-ground conservation experience, ideas and concerns with peers, decision makers and the wider public. The next years will be decisive for halting the rapid biodiversity loss worldwide and the force of the youth is needed more than ever. Go4BioDiv supports the young dedicated people around the world in this huge task.

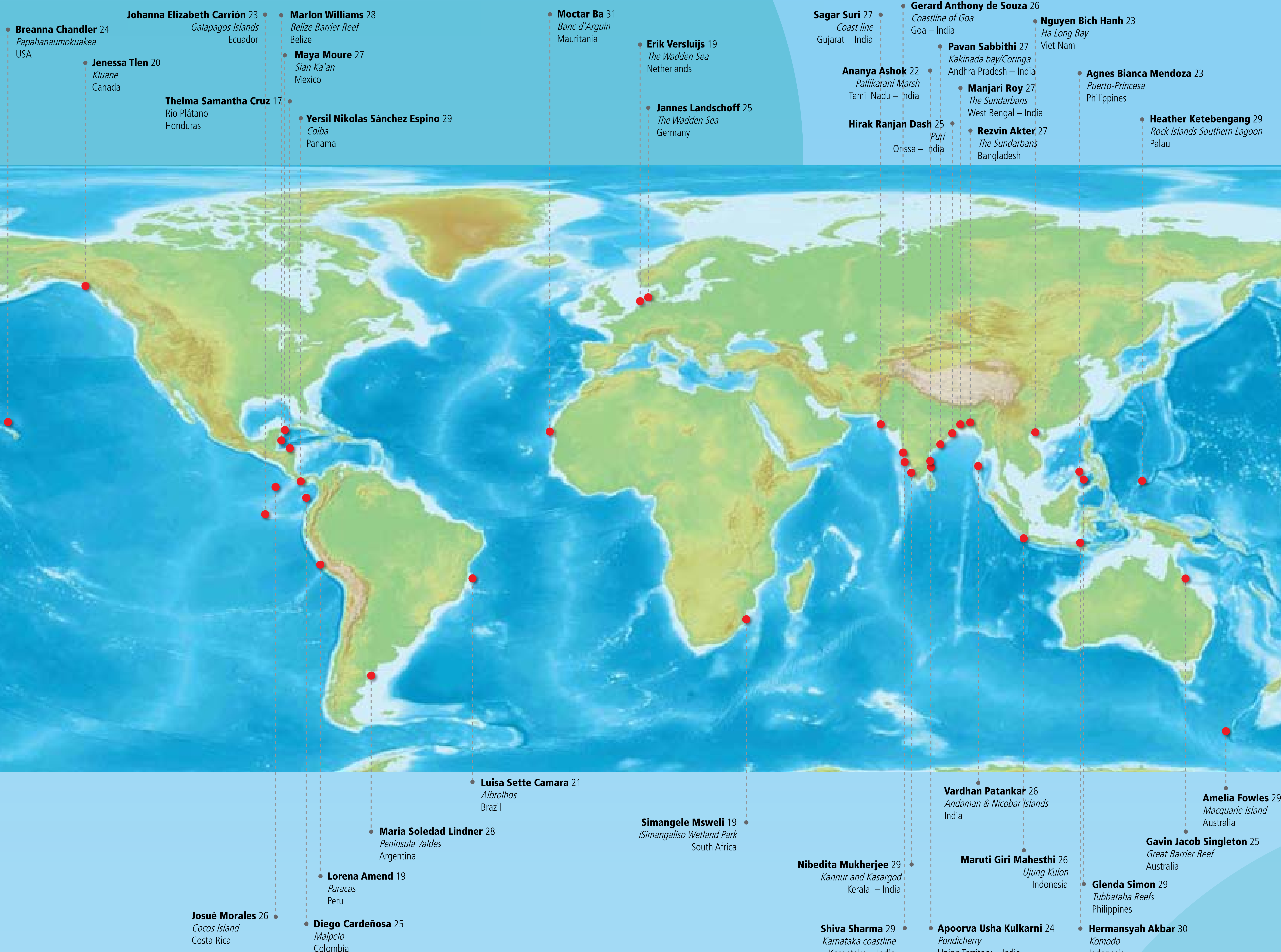
THE PARTNERS, THE PAST AND THE FUTURE

Go4BioDiv has already been carried out twice: in Germany 2008 and in Japan 2010, and it was a great success. A few months ago it was recognized as a project of the United Nations Decade on Biodiversity due to its "excellent approach to getting young people actively involved in international policy dialogue on the conservation of biodiversity".

In 2012, Go4BioDiv is jointly organized by the Indian Ministry of Environment and Forests (MoEF) with the Wildlife Institute of India (WII) as the nodal centre, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal German Ministry for Economic Cooperation and Development (BMZ), the ASEAN Centre for Biodiversity (ACB), and the International Union for Conservation of Nature (IUCN). It is supported by the World Heritage Centre of the United Nations Educational, Scientific and Cultural Organization (UNESCO WHC), the Secretariat of the Convention for Biological Diversity (SCBD), and World Wide Fund for Nature (WWF). Together with many other allies, the Youth Messengers reach out and make a strong call to the public.

Photo: Vardhan Patankar





DIVE INTO OUR FUTURE

Less than 2% of the ocean is protected worldwide. We are the Youth Messengers of Go4BioDiv – and we are lucky: most of us come from coasts and islands belonging to this small section of protected areas. We have experienced that the oceans bear a wealth of life and beauty if they are treated respectfully. We know that we strongly depend on those fragile coastal and marine ecosystems, and that we simply could not exist without them. ‘Conservation of coastal and marine biodiversity for sustaining life and livelihoods’ – that is what we aim at and urge you to do as well!

We are thirty-five dedicated young people selected to represent our communities, environmental groups and research institutes from the Americas, Europe, Africa, Asia and the Pacific region, including Australia. As Messengers of our sites, we have a lot to say and to show - dive with us deep into our oceans and learn more!

The oceans are vast and so should be our vision to protect and restore their bio-diversity. I strongly believe that the youths in our generation have to join hands not only to prevent further ecological degradation of the oceans but also correct the glaring mistakes done by our past generations.

Nibedita Mukherjee, Kannur, Kerala, India

Photo: Vardhan Patankar

There is a demand for a healthy coast and clean water, where fish can be caught and people can swim. Therefore the community needs conservationists to safeguard coastlines like the Wadden Sea. Personally, and as a coastal biologist, this means life to me.

Jannes Landschoff, Wadden Sea, Germany





OUR MARINE WORLD HERITAGE

THE CROWN JEWELS OF MARINE CONSERVATION

The UNESCO World Heritage Convention was adopted in 1972 on the premise that certain places on our planet are of Outstanding Universal Value and as such should form part of the common heritage of humankind and be preserved for future generations. On a blue planet with more than 70% oceans, a huge part of our biological and associated cultural heritage is located in marine areas.



Photo: Nguyen Bich Hanh

Ha Long Bay was the first Vietnamese natural World Heritage site. The unique natural and cultural values of this dreamlike bay with up to 2000 islets have been appreciated and loved by millions of visitors. With the economic, historic and cultural values, Ha Long Bay does not only mean life for my community but is also a source of pride of us.

Nguyen Bich Hanh, Ha Long Bay, Vietnam

SITES OF “OUTSTANDING UNIVERSAL VALUE”

My site, the Tubbataha Reefs, holds the only true atoll coral formation in the Philippines and is one of the few remaining examples of a highly diverse near pristine coral reef in the world. It is home to a number of endangered and internationally protected marine species and secures food for the Filipino people.

Glenda Simon, Tubbataha Reefs, Philippines

Today, there are 46 marine sites in 34 countries inscribed on the World Heritage List. All these sites bear exceptional features and have been recognized by the international community for their breathtaking natural beauty, fabulous biodiversity, or unique ecological, biological and geological processes. In the language of the Convention they all have Outstanding Universal Values. Despite their high societal recognition, a combination of human activities and natural influences put many sites in danger. If we want to maintain their beauty and functionality and pass it on to the next generation, we need to seriously tackle the threats for the conservation of our coasts and oceans – in World Heritage sites as well as everywhere else in the big blue realm.

Photo: Lene Topp





Photo: Stephen Johnson

OCEANS FOR LIFE

Life was born in the oceans. From there it conquered the terrestrial areas, the mountains, the rivers, and the air – without ever losing the connection to the ocean. Until today, we and all life on this planet depend on the sea for our survival. With every breath we take, every sip of water we drink, every fish we eat, and with many storms we endure: we are connected to it. All the marine and coastal ecosystems have their special services to offer: Estuaries and coral reefs are among the most productive regions on the planet!

Some plant and animal species are vital for the health of productive ecosystems – even though you might never have heard of them before. We simply cannot afford to lose any more of our marine and coastal diversity or further endanger the most amazing regions of the world!

Follow us through some of the important marine and coastal ecosystems and discover the uniqueness and immense value of our sites.

From mangroves to corals, and browsers to predators: all being found here makes the Gujarat Coastline a wholesome and balanced system. While corals facilitate security and breeding of various species of fish, mangroves provide safety from high tides and the wrath of water. One of the unique species found here is the Dugong, recently declared vulnerable to extinction by the IUCN.

Sagar Suri, Gujarat Coastline, India

Photo: Aleks Terauds



35 species of mammals, 5 species of primates, 59 species of reptiles, 22 species of amphibians, 240 species of birds, 72 species of insects, 142 species of fish and 33 species of coral reefs – all to be found in Ujung Kulon National Park!
Maruti Giri Mahesthi, Ujung Kulon National Park, Indonesia

Photo: Vardhan Patankar





Photo: Apoorva Usha Kulkarni

OCEANS FOR LIVELIHOODS

Coasts and islands have a magnetic effect on people: More than one third of the world's population live in coastal areas and small islands, in an area that makes up just over 4% of Earth's total land area. But what makes people accrue there? Livelihoods! Over half a billion people base their livelihoods directly on oceans and coasts. Alone fisheries and the processing of fish provide employment to 38 million people. Those numbers are not astonishing when you take into account that over a billion people rely on fish as their primary source of protein. In the context of livelihoods, the rapidly growing tourism sector provides new opportunities for many coastal communities and plays an important role in their daily lives.

Since our wellbeing depends so obviously on functioning, productive ecosystems and their optimal utilization, we should definitely not miss to conserve them properly! Visit with us some of the most important ecosystems in our home countries and discover their value for our wellbeing.

Photo: Lafuleni Nonku



Some people in my community make income with grass from the ocean environment. They harvest this long grass and make handicrafts like sleeping mats, baskets and door mats with it. They sell their artwork and manage to generate income.
Simangele Msweli, iSimangaliso, South Africa

There are about 18 marine fishing villages and 10,370 fishermen families in Pondicherry. The ocean is like a mother to these communities as she provides them with all the required resources. Fish is their staple diet and only source of protein intake. 80% of the population thrives directly or indirectly on fishing activities.
Apoorva Usha Kulkarni, Pondicherry, India

Mangroves are the main source of income generation for fishing communities and a good source for timber, fuel, fodder, honey, medicine and secondary by-products: Tannins extracted from the bark of some mangroves are used by Indian fishermen to dye their nets and thus enhance their durability.
Pavan Sabbithi, Andra Pradesh Kakinada Bay, Coringa, India



BONDS DEEPER THAN THE OCEAN

Coastal areas and marine resources are of substantial cultural and historic significance to many communities. Sometimes, the islands and coastal regions not only provide the main sources of food but have been used for settlement and cultural rituals during millennia. Over the time, an often complex value, believe and practice system has been established and is passed on from generation to generation, as part of an intangible cultural heritage. This includes deep knowledge about the marine and coastal ecosystems and a lifestyle which goes along very well with the often fragile ecosystems.

But the risks are obvious: If healthy and productive seascapes and coastal landscapes are lost, the basis for traditional use patterns of local communities are endangered, the source of affection and respect is lost, cultural identity might fade and spiritual well-being is no longer assured. So many more reasons to conserve our oceans properly!

Photo: Mushfiq Amed



Photo: Randi Kosaki



It is home and a healing place! The ocean is home to my community. We feel an unexplainable spiritual connection to the sea. Elders believe we not only belong to the sea but we also descend from it as well. We are told to live in harmony with all living things in the ocean, as it is the main provider of food and medicine for my community.

Gavin Singleton, Great Barrier Reef, Australia

Photo: Gavin Jacob Singleton



As the locals say "Papahanaumokuakea is where life originated from", and once you see the vast array of life it is easy to understand that idea. Papahauumokuakea is more than just a marine sanctuary, it holds the highest concentration of ritual sites in Hawaii. Papahauumokuakea reminds me of Ohana (family). I know that Papahauumokuakea will be my Ohana.

Breanna Chandler, Papahanaumokuakea, USA

I am an islander, and the ocean is a part of my life. Without the ocean, I would not know who I am.

Heather Ketebengang, Rock Islands Southern Lagoon, Palau



SO IMPORTANT, YET SO THREATENED

MARINE & COASTAL DIVERSITY

Photo: Apoorva Usha Kulkarni

Within ecosystems, the plant and animal species fulfill important functional roles. Some species build habitats, others recycle nutrients, the herbivores feed on algae and top-predators prey on other inhabitants of the sea. These relationships have evolved over a long time and are sensitively balanced.

However, marine and coastal ecosystems face a multitude of challenges. Global pressures like climate change, plastic waste and overfishing add onto habitat destruction for housing or other infrastructure buildings, as well as regional sources of eutrophication or toxic inputs from industrial facilities. Each of these factors poses a threat, but in combination they multiply their negative effects and thus threaten the health and resilience of the entire ecosystems.

The loss of species and thereby the loss of functional diversity impairs the capability of ecosystems to cope with pressures. Further degradation may lead to irreversible changes in the structure of the ecosystems and their provision of services.

We therefore urgently need to take a precautionary approach to all human activities, if we want to preserve our "life-support-system".

12%
of all foreigners
who visit India come to
Goa. Tourism has put huge
pressure on the state's mangrove
forests and beaches. The real estate
industry seeks to build anywhere and
everywhere: hotels, houses or other
infrastructure. Just everybody wants
a "house in Goa".
*Gerard Anthony de Souza,
Goa, India*

I see the need and
the opportunity for my family
and my community to have a
sustainable way of living. Many people
still believe that fish stocks will never be
depleted, but it is the mindset that needs
to be changed. I don't expect every fisher in
my community or in Belize to convert but
to understand the very basics that using a
resource without allowing it to recover
will surely bring adverse effects.

*Marlon Williams, Belize
Barrier Reef, Belize*



Photo: Gerard Anthony de Souza

As
the weather
warms in our arctic area,
the ice fields and some of the
unique species are being threatened.
Even minor changes to the environment
can have dramatic effects on the ice pack
and sensitive plants and animal species.
Mining is a growing economy that is heavily
impacting the Yukon Territory in northern
Canada currently. We all wonder what
the future will bring.
*Jenessa Tlen, Kluane,
Canada*



SERVICE PROVIDERS ON STILTS

MANGROVES

Mangroves are a functional group of shrubs and trees perfectly adapted for a life between the elements. Their specialized roots form a dense meshwork that slows down water movements and withholds particles. Small fish, shrimps and clams thrive in these cleared waters above the fine muddy sediments, attracting bigger fish and thus fostering human livelihood.

In the course of the projected sea-level rise mangroves will have to move “up-shore” with the new waterlines. In the densely populated coastal areas, however, limited space is left between human settlements and infrastructures. Apart from this “coastal squeeze”, mangroves are threatened due to firewood collection, conversion into shrimp or aquaculture ponds and clearings for tourism related facilities.

Mangroves have the capacity to store organic carbon in the sediments: stabilized by the root system and covered by water in anoxic conditions, organic carbon can be sequestered as long as the sediments stay untouched and below water. But when mangrove forests are converted into shrimp ponds, this carbon is released.

Sundarbans, the largest mangrove forest in the world, is a unique ecosystem. This magical forest provides services to a vast number of people, for example wood and non-timber forest products like honey, wax, and golpata (Nypa Palm). The Sundarbans protect the local people from natural disasters like cyclones, tidal surge, floods, and minimize their livelihood damages. The mangroves also purify the water, control the nutrient cycling, prevent soil erosion and maintain the environmental balance of this area.

Rezvin Akter, Sundarbans, Bangladesh

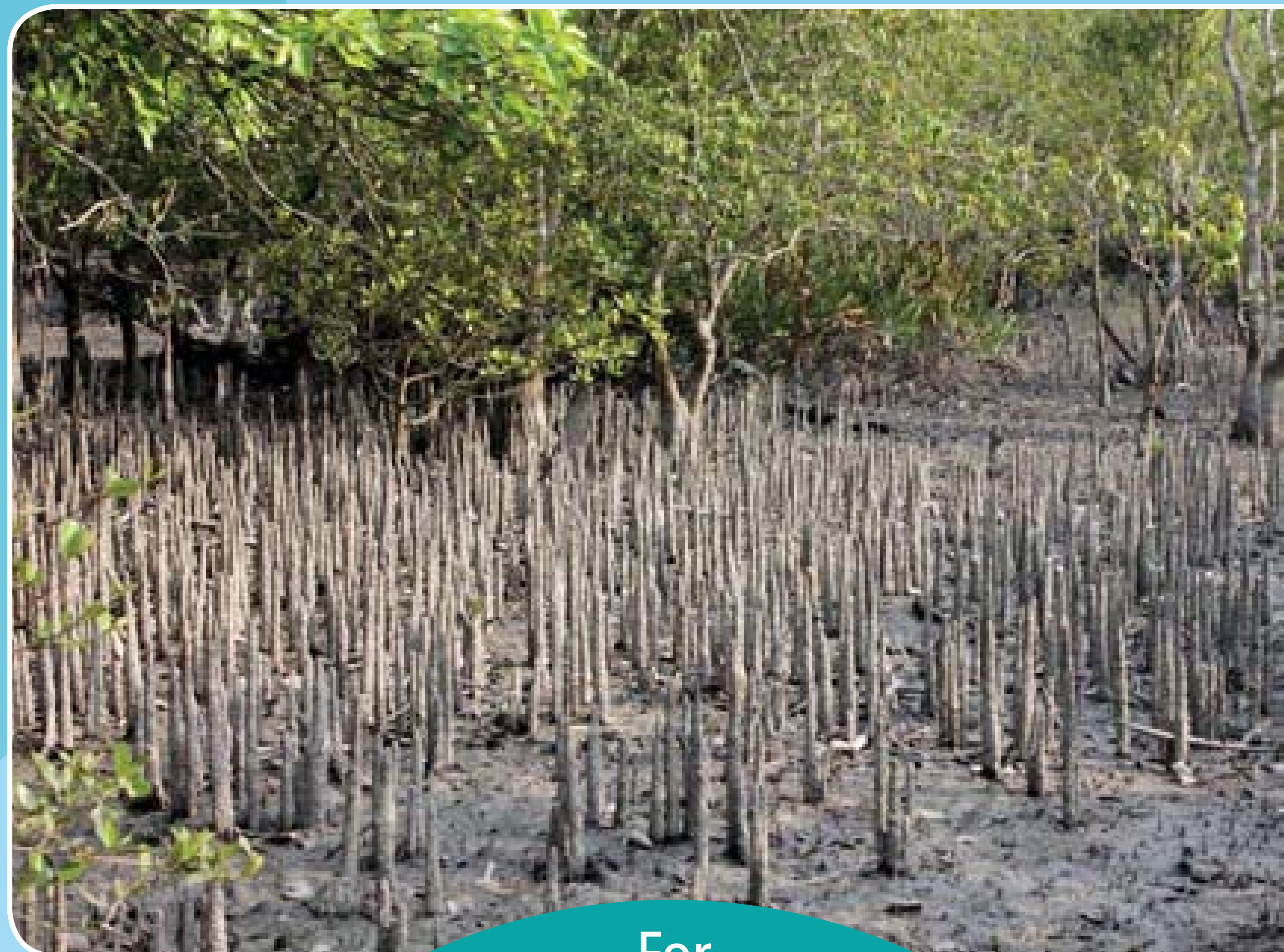


Photo: Iqbal Hussain

For me, the most salient point about the Sundarbans is how the tiger not only survives but breeds quite successfully in such a difficult terrain with its characteristic slippery mud banks, submergence of almost 60% of the islands during the spring high tides, low variety of prey and last but not the least the sharp pneumatophores throughout the forest floor.

Manjari Roy, Sundarbans, India

I work and live in Komodo National Park. My parents originate from Komodo village. I fully understand that my home is a World Heritage site, which has a unique and important biological diversity. By saving the area, the ecosystems will sustain the benefit for the people living inside and surrounding the area of the WHS.

Hermansyah Akbar, Komodo National Park, Indonesia

Photo: Dipanjan Naha





NOTHING FOR TIRED FELLOWS

SEAGRASS BEDS

Inhabitants of seagrass beds are anything but sleepy. Big marine herbivores, like the highly endangered sea cows (dugongs and manatees) and the green turtle, use these meadows as their feeding grounds and a range of herbivorous water bird like ducks and geese are frequent visitors to those areas. Fishes, clams, crabs, shrimps and sea cucumbers, to name a few, house in seagrass beds and are collected for livelihood by coastal communities around the world.

Photo: Heather Ketebengang



Seagrass beds can be found on soft bottom grounds in shallow coastal areas almost all over the world. They need soft bottoms because they are the only marine plants with roots and rhizomes anchoring in the ground. Those “little anchors” stabilize sediments, act as barrier against wave energy and protect the coastlines with their beaches and local settlements. But seagrass not only stabilizes, it also constructs, it is a real “ecological engineer”: A bare mud or sand bottom develops into a complex three-dimensional structure of grass which then provides breeding grounds, food and shelter to countless other fauna and flora.

Photo: GBR Marine Park Authority



Despite their beauty and ecological importance, seagrass beds are often overlooked and undervalued by conservation measures. However, in recent climate change discussions they gain weight: these ecosystems store enormous amounts of CO₂!

Our temperate oceans are teeming with plants and animals. We have twice as many species of seaweeds and seagrasses than tropical areas. The majority of southern Australian marine species do not occur in other countries, making these species more vulnerable to extinction. Many species are being increasingly ‘squeezed’ by sea temperature rising above their preferred range, the invasion of exotic species, southward expansion of native warm water species and increased fishing pressure.

Amelia Fowles, Macquaire Island, Australia

All the ecosystems have to be safeguarded because they are related to each other. When one of them is destroyed it will reach the others badly. When we don’t safeguard them we will lose a lot of advantages that they provide.

Moctar Ba, Banc d’Arguin, Mauretania



ARCHITECTURAL DIVERSITY AND PSYCHEDELIC COLOURS

THE CORAL'S WORLD

Photo: Lene Topp

Coral reefs are one of the most amazing features of life on earth and there is nothing comparable to it on land. Hard and soft corals build up unique landscapes. Each colony contributes with its characteristic shape, like branching or foliaceous corals, table tops, wrinkled brains, antlers or massive pillows. Most reefs are situated in the shallow waters of the tropics since the coral polyps live in symbiosis with small algae that need sun light for their photosynthesis. But some specialized corals can also be found in the colder and deeper seas, where they grow slowly in the dark, without algal helpers.

Tropical coral reefs survive in a very narrow light-temperature range. They are sensitive to high particle loads in the water, pollution and eutrophication. Destructive fishing methods and poor anchoring practices in touristic areas contribute to direct damaging of the reefs.

Corals provide a broad range of livelihood opportunities. On intertidal reef flats gleaning of invertebrates is an activity involving whole communities, especially women and children. Fishing on the productive outer reefs is, with very few exceptions worldwide, the duty of male community members.

Photo: Maya Moure



To me the sea is a profusion of colour: canary yellow, vermillion red, citron orange, royal purple, pristine white dappled sunlight and an electric blue sea. I realised this nine years back, when I was introduced to diving. In the last few years the process of learning from nature, both above and in the water, has become a passion.

Vardhan Patankar, Andaman and Nicobar Islands, India

Photo: Vardhan Patankar



The boundaries of the Sian Ka'an Biosphere Reserve include 110 km of the second largest barrier reef in the world. It means refuge for many species, protection from beach erosion, and an incredible landscape, which also attracts tourism to the region.

Maya Moure, Sian Ka'an, Mexico



GLOBAL TOP-MOVERS

PELAGICS

Behind the outer reef slopes and far from tidal flats there are thriving communities in the open waters of the oceans. Planktonic algae build the basis of diverse food webs. Small planktivorous crustaceans are eaten by different sizes of fish, leading eventually to the more famous top-predators like tunas, whales and sharks. But marine food chains can also be short: whale sharks directly prey on planktonic organisms and reach sizes way beyond the common prey spectrum.

Most of the industrialized fishery fleets target pelagic species – and by ecological standards they are by far too effective. To satisfy the growing demand, also the remotest areas are being tapped and even the deep sea got into the commercial focus.

The species at the top of the food chain suffer from overfishing, pollution, habitat destruction and stress, like increasing underwater noise and dwindling food resources. Many of the huge fish and whales, but also marine turtles use global migratory routes with breeding, feeding and mating grounds. There they meet during specific times of the year. These truly global species are treasures of which we humans have to take good care: global networks of marine protected areas and mechanisms for negotiating the resources of the open seas are important approaches to meet this challenge.

Photo: Maria Soledad Lindner

Malpelo

Sanctuary is worldwide known for protecting large aggregations of sharks that patrol around the island. Due to the increasing demand for shark fins and their high value in Asian markets, many populations of sharks have been depleted due to overfishing during the last decade. Therefore, the biggest threat today are the illegal fishing boats using the area for shark finning and other fishing activities.

Diego Cardeñosa, Malpelo, Columbia

Abrolhos

was the first marine national park established in Brazil, in 1983, because of its biodiversity and exuberance. The archipelago is also the home to over 1,300 invertebrates, fishes, turtles, seabirds and marine mammals. Of these species, 45 are considered threatened according to the IUCN Red List. Abrolhos attracts thousands of tourists every year, especially because it is the breeding ground for humpback whales, which had almost gone extinct by commercial whaling.

Luisa Sette Camara, Abrolhos, Brazil

In

Peninsula Valdés

we have a unique continental colony of southern elephant seals; the orcas have developed an exceptional hunting technique, and the right whales mate and give birth in the area. Whale watching is an important touristic and economic activity of the region. During 2011, more than 110,000 tourists took the excursion to sight whales. The Peninsula is the principal reproduction area of the Southern Right Whales. This species had been edged close to extinction after many years of whaling. Now, in the Southwestern Atlantic Ocean the population consists of about 4,000 individuals and is rising with a rate of 5.1% per year.

Maria Soledad Lindner, Peninsula Valdés, Argentina





WELCOME TO THE WORLD OF PIPERS, BOOBIES AND PENGUINS BIRDS



Photo: Schutzstation Wattenmeer

Birding is a hobby that connects many people with nature – beyond age groups, social classes, or the divide of urban and rural inhabitants. A specialized tourism sector has evolved through this demand. It brings small groups of people to places where they can spot rare bird species or avian mass-gatherings.

The global migration patterns of birds are fascinating: many of the species that travel for thousands of kilometers rely on wetlands, coastal lagoons, intertidal mud flats or islands in the open waters during their annual migration. The spoon-billed sandpiper for example, is listed by IUCN as one of the 100 most critically endangered species in the world. This shorebird breeds in Russia and migrates 8,000 km along the East Asian-Australasian Flyway to the wintering grounds in Bangladesh and Myanmar. It is threatened by hunting and the degradation of intertidal habitats.

There are also true pelagic seabirds spending most of their life time over the oceans, just touching land to raise their young. Albatrosses belong to this category. They are highly endangered through accidental bycatch in commercial fisheries, ingestion of plastic waste and through predators like introduced mammals on their breeding grounds.

Several bird species flying across the globe on inherited migratory patterns find calm, solace and rest at the Pallikaranai Marsh as they stop to feed, breed and nurse their young. Among the several exotic birds, often spotted here are jacanas, painted storks, lapwings, pelicans, flamingos - and the list goes on!
Ananya Ashok, Pallikarani Marsh, Tamil Nadu, India

Since my childhood I have visited the Wadden Sea often, mostly for bird watching. Now I know why this is such a good place for bird watching: the dynamic effect of the sea provides for a rich ecological diversity. And this diversity generates plenty types of food resources for migrating and wintering birds.
Erik Versluijs, The Wadden Sea, Netherlands

Photo: Diego Cardenas





PEAKS OF MARINE DIVERSITY

SEAMOUNTS AND OFFSHORE ISLANDS

Photo: Diego Cardenosa

Seamounts are underwater mountains which stopped growing before reaching the ocean surface. Many species roaming the sea use them as “stepping-stones” in the vast openness of the oceans. The water upwellings from the depths of the ocean into the shallower peak areas are especially nutrient rich and become hotspots for marine life.

Offshore islands are the big brothers of the seamounts - they made it through the ocean surface. In isolation from the main lands, they benefit from larval input of the surrounding currents. Many of them host a unique fauna and flora and have high rates of endemism.

Human communities on offshore islands depend directly on the sea. The relationship to their home (is)lands is strong – emotionally and economically. The challenge begins when resources decrease through overexploitation, habitat destruction, or storms. Tourism sometimes provides new livelihood opportunities, but has to be managed with caution to stay within the tolerable limits for the island ecosystems.

I was raised in the Islands and learned everyday about the importance of living in such a fragile ecosystem with so many unique characteristics. Then, at university I studied ecotourism. Now the main objective of my career is to practice low-scale tourism with low impact.

Johanna Carrion, Galapagos Islands, Ecuador

In our small scale fisheries, only 47 authorized vessels are allowed to harvest within the boundaries of Coiba National Park. Due to my work with some communities located in the buffer zone, I have realized that the livelihoods of those people depend not only on harvesting the goods that the site provides, but their constant interaction with the Park and other communities, every single day.

Nikolas Sánchez, Coiba, Panama

In Isla del Coco we have several ecosystems but the most important for me is called ‘Estación de Limpieza’ (cleaning station). So far we know about 24 cleaning stations where sharks arrive to get cleaned from parasites by other small fish. The small fish that help the sharks are called ‘Cirujanos’ (surgeons) and ‘Pez Ángel’ (angel fish) - their physical features are ideal for their “doctor role”.

Josue Morales, Cocos Islands, Costa Rica

Photo: Victoria Suarez





IT'S ALL ABOUT THE RIGHT MIX

ESTUARIES & TIDAL FLATS

Estuaries are coastal areas where freshwater input from land meets the coastal environment. Species living in these zones have to be able to cope with a wide range of salinity, high particle inputs and nutrient loads. Tidal flats pose additional demands on their inhabitants: the cycle of the tides exposes the flats to droughts and extreme temperature shifts, which may lead even to freezing events. Although this leads to a limited set of species compared to full-marine or full-freshwater conditions, the optimally adapted candidates, like some clams, worms and crabs, thrive in high numbers. They find rich food supply in the nutrient-loaded mud and serve as favorite plates for wading birds and several fish species.

Habitats associated with estuaries, act like huge filters dealing with the riverine loads. They comprise salt marshes, mangrove forests and seagrass meadows in the shallow waters. These loads may contain sediments, nutrients, but also waste - depending on the area of the drainage basin, the population density and the upstream land-use schemes. This explains the high productivity of estuarine areas, but also their proneness to pollution.

Our national park is home to very diverse flora and fauna and there are several reasons why we should protect the site. The park serves as a research site for the history of animals, land formation and geological subjects. Recently, cave explorers found a 20 million year old seacow fossil. It is only right to respect each and every life creation, and our task is to preserve it for the future generation.

*Agnes Bianca Mendoza, Puerto
Princesa Subterranean River,
Philippines*

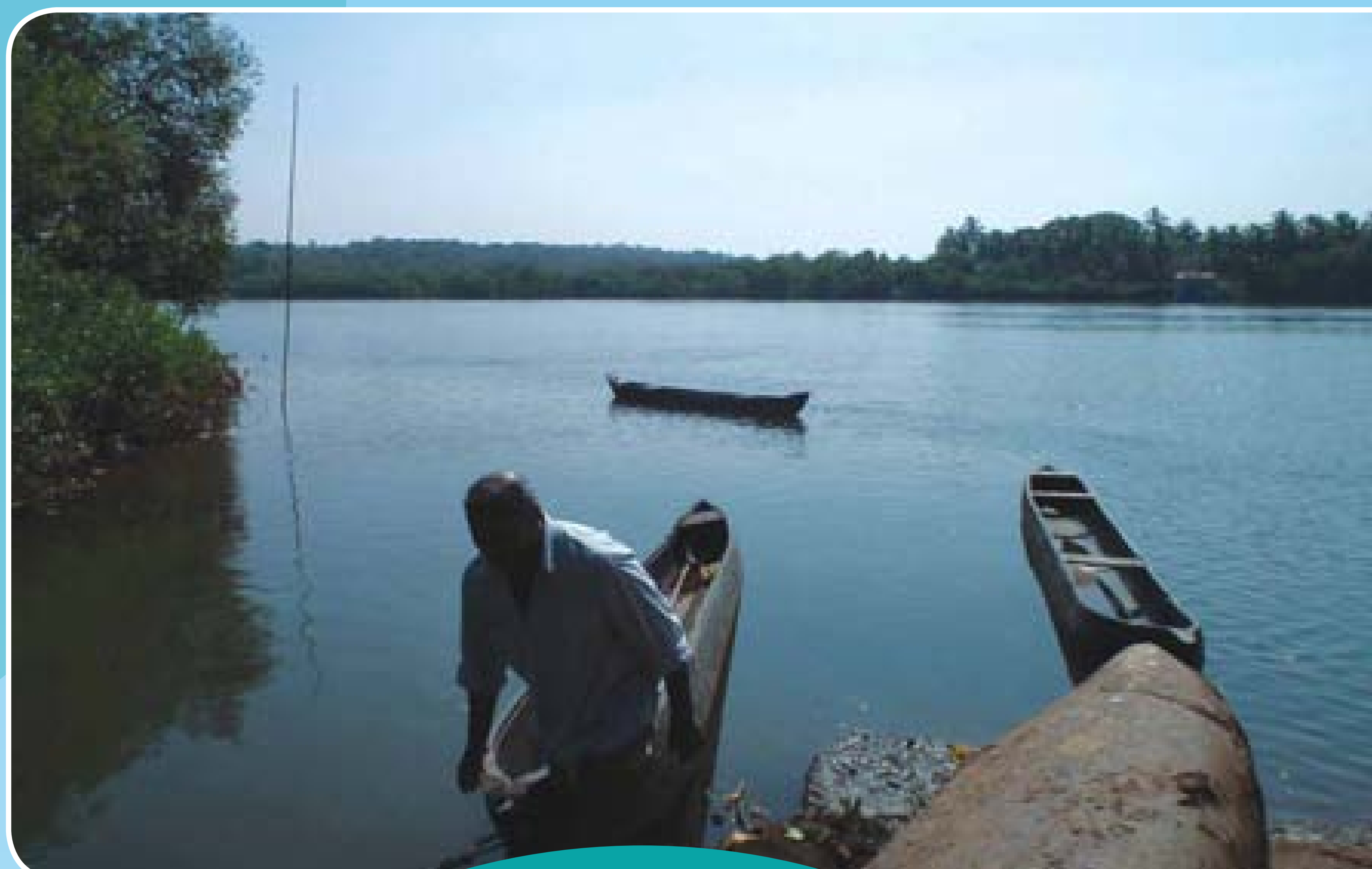


Photo: Gerard Anthony de Souza

For me the coasts and estuarine environments of the backwaters have been the only environment I have known - be it for a refreshing swim or collecting shellfish from the riverbeds for their delicious taste. I continue to find most fulfillments in such environments, even though man-made factors and my preoccupation with my job have made bivalve fishing out of question. The memories however remain dear to me.

*Gerard Anthony de Souza, Goa
Coastline, India*

The main problems in the Rio Platano Biosphere include: plastic waste and the accumulation of debris, the changing land uses and land market, the loss of wildlife, and pollution of the lagoons.

*Samantha Cruz, Rio Platano,
Honduras*

Photo: Erik Versluijs





LIVE THE CONTRAST

ROCKY SHORES AND SANDY BEACHES



Photo: Lorena Amend

There are many different types of rocky shores and sandy beaches, all of them with well-defined and adapted groups of inhabitants.

Apart from the substrate of the ground, also the exposure to waves, currents and tides is an important factor for the definition of the specific habitat. The span ranges from high energy coasts to sheltered lagoons. Both types of shores offer livelihood opportunities for many coastal communities, especially in areas under tidal regimes, since clams, crabs and small fish are easy to reach during low tides.

Cliffs and rocks are often home to seabird colonies. Some rocky shores have a greenish color due to algae species, which need a hard substrate for their basal holdfasts. In the sea, kelp forests consist of brownish macroalgae. They can reach impressive heights, providing a unique habitat for fish, otters, seals and other marine animals. Oysters and lobsters are also friends of solid grounds.

Sandy shores provide nesting sites for birds, turtles and seals: they are much more than dull, uniform spaces. But beaches are also important for many human activities, ranging from local fisheries to tourism. That's why a coherent planning and the management of different human activities, especially in ecologically sensitive areas such as nesting sites, is highly needed for the long-term conservation of the precious resources.

It feels like home for me when I walk on the beach and take photos for hours while I feel the cool ocean wind touch my skin. In the Paracas region, I admire its spectacular shoreline with rocks, desert features, ancient cultures, and the rich marine life around the Ballestas islands. Watching the sea lions, dolphins, penguins and the variety of shore birds made me realise how important it is to protect this rich coastal life of Peru. It made me curious to learn more about the sea and ways to protect it – this is one of the reasons why I decided to go to India where at present I am working as a volunteer in marine turtle conservation, on the coasts of Kundapur.

Lorena Amend, Paracas, Peru



Photo: Apoorva Usha Kulkarni

Pondicherry is known for its scenic beauty with its vast stretch of sandy beaches, swaying palms and traditional catamarans. The people here make it even more special as they worship the ocean and completely rely on it for their livelihoods. The sand dunes and rocks on the beaches form strong fringes that protect the community life. The coast also prevents ground water from turning saline. The coast is the only platform for the community's social linkages; age-old rituals and traditional festivals – like the Masi Magam – are celebrated here.

Apoorva Kulkarni, Pondicherry, India