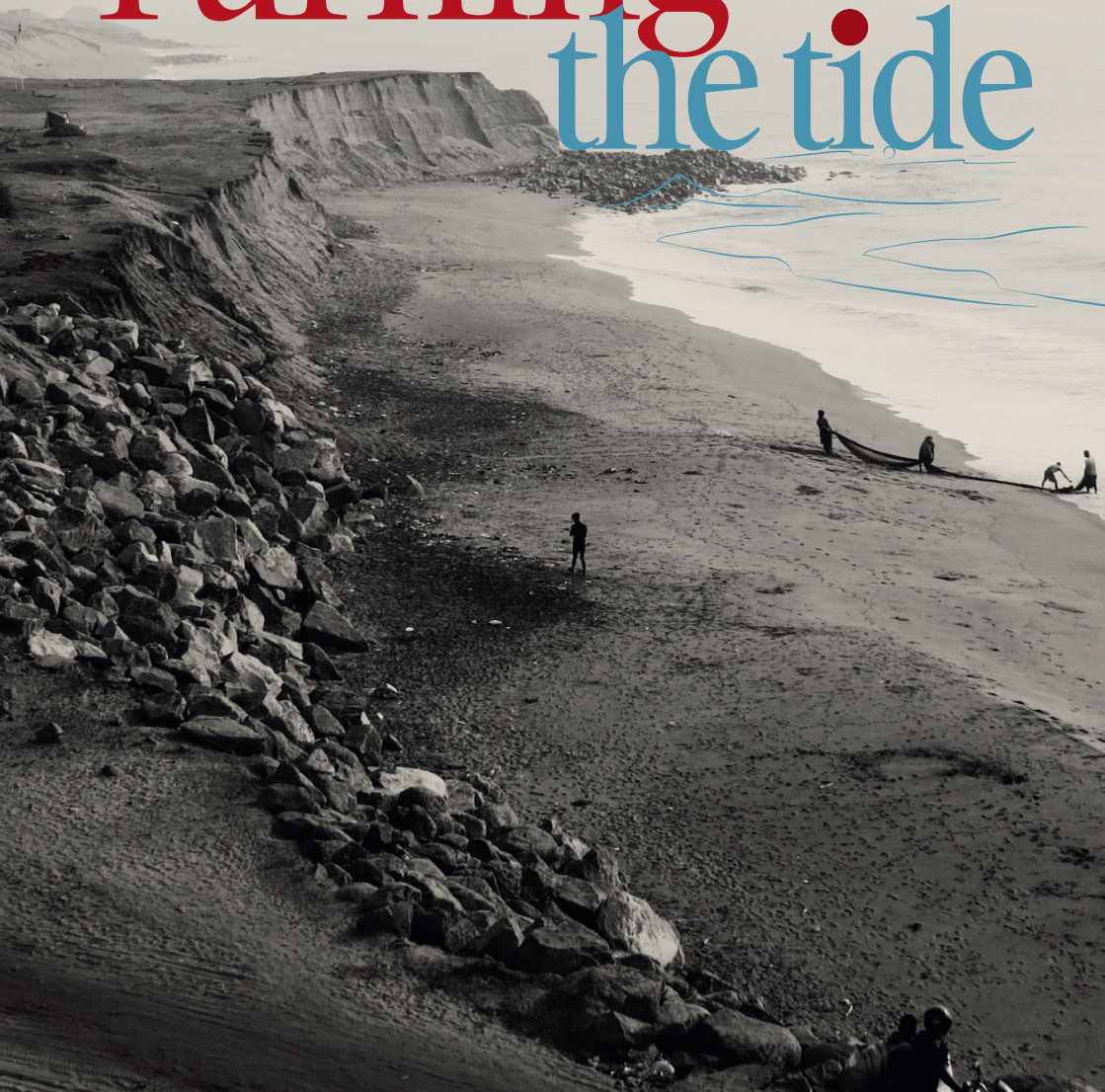


Dakshin Foundation's
Climate Initiatives



Turning the tide



Design and layout: S Gayathry, Apna Kuruvilla and Anu Priya Babu

Illustration: Apna Kuruvilla

Text and content: Namrata Lunia, Meera Anna Oommen and Aarthi Sridhar

Photos: Sourced from Dakshin's team

CONTENTS

1.WHO WE ARE	1
2.WHAT WE DO	2
3.CLIMATE ACTION AND COASTAL INDIA	4
4.DAKSHIN'S APPROACH TO THE CLIMATE CRISIS	8
a.Climate-wise Interventions	10
b.Generating Knowledge for Warming Oceans	12
i.Ocean Solutions	13
ii.Blue Carbon Atlas of India	14
iii.Blue Economy Enterprises (BEE)	18
iv.Ocean Sentinels and Ocean Stewards	20
v.Climate Communication	23
vi.Long Term Ecological Observatories	25
c.Climate Action Themes	29
i.Evidence Building	30
ii.Climate Justice	33
iii.Climate Adaptation	35
iv.Outreach & Capacity Building	37
v.Climate Mitigation	40
vi.Climate Policy Support	43
5.DONORS AND SUPPORTERS	46



Who we are

Established in 2008, Dakshin Foundation is a registered non-profit organisation committed to achieving environmental sustainability and social justice. Our mission is to inform and catalyse conservation and natural resource management while promoting sustainable livelihoods, social development, and environmental justice.

Dakshin works primarily across India's coastal, marine, and island systems, where we intervene to deliver positive outcomes for both people and the ocean. Our work is guided by expertise from the natural and social sciences, as well as practice-based fields, allowing us to address conservation and livelihood challenges at multiple scales.

We work in partnership with local communities, government departments, civil society organisations, and the private sector to develop and implement change actions grounded in local realities and responsive to ecological and social needs. Through both stand-alone and cross-sectoral interventions, we seek to strengthen conservation outcomes while supporting community well-being.

With active programmes in the Andaman and Nicobar Islands, Odisha, Lakshadweep, Maharashtra, and Tamil Nadu, Dakshin contributes to the long-term sustainability of the Indian Ocean's diverse ecosystems and coastal communities.

What we do

SEACHANGE

SeaChange is Dakshin's flagship initiative for integrated coastal and marine interventions. It addresses interconnected social and ecological challenges through systems-based approaches that strengthen environmental sustainability, community wellbeing, and resilience across coastal and marine landscapes.

MARINE FLAGSHIPS (MF)

Marine Flagships generates long-term knowledge on marine ecosystems and species through collaborative research and monitoring. The programme focuses on understanding ecological change and informing conservation action through work on marine species and ecosystems of conservation significance.

SUSTAINABLE FISHERIES AND LIVELIHOODS

This programme works to strengthen the sustainability, governance, and economic viability of marine fisheries. It supports participatory monitoring, fisheries co-management, and livelihood approaches that improve economic outcomes while maintaining ecological sustainability and social equity.

COMMUNITIES AND RESOURCE GOVERNANCE (CRG)

Communities and Resource Governance strengthens the institutions, leadership, and governance processes that shape coastal and marine resource use. The programme supports community participation, social inclusion, and more equitable decision-making across scales.

COMMUNITY WELLBEING AND ENVIRONMENT (CWE)

Community Wellbeing and Environment works to improve the health, wellbeing, and resilience of coastal communities. Through preventive health initiatives, sport-based engagement, and community-led approaches, the programme strengthens individual and collective capacity to respond to contemporary challenges.

CONSERVATION CROSSROADS (CCR)

Conservation CrossRoads addresses emerging challenges that shape the future of conservation and environmental sustainability. The programme focuses on complex social-ecological issues such as conservation conflict and climate change, helping develop new approaches to understanding and addressing them.



Climate Action & Coastal India

The climate crisis has the world's attention. In early 2026, average global temperatures are nearly at the threshold of 1.5°C by 2030, set by the Paris Agreement of 2015. Without realistic adaptation plans being implemented in time, millions of coastal communities in India and the wider Indian Ocean face dispossession within the turn of the decade. As high emitter nations and industries fail to agree on fair net zero targets and compensatory commitments, coastal futures for the Indian Ocean's vulnerable communities look grim.



1 The Paris Agreement is a legally binding international treaty on climate change adopted by 196 Parties, including India, at COP 21 under the UNFCCC in Paris, France, on 12 December 2015. It aims to keep global temperature rise well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C.

2 The AR was prepared and released between 2018 and 2023 and is a comprehensive scientific summary of the current state of knowledge on climate change and its impacts. It guides policymakers, governments and civil society in making informed decisions on mitigation and adaptation and climate action.

What climate (in)action means for coastal India at this dire stage?

The Intergovernmental Panel on Climate Change (IPCC)'s synthesis report summarising the findings of the Sixth Assessment Report (AR6) on climate change indicated that all of South Asia, including India, was expected to experience significant temperature increases, altered precipitation patterns, and more frequent and intense extreme weather events such as heatwaves, rainfall, floods, and droughts if temperatures exceeded targeted thresholds. The report emphasised the importance of adopting urgent adaptation measures, like building climate-resilient infrastructure and improving water management, to reduce the vulnerability of communities and ecosystems. The current year has already shown the predictions to be true with a failing monsoon.

Across a fast warming Indian Ocean, recurrent coral bleaching events, shifting fisheries dynamics and extreme weather deepen the vulnerabilities of small-scale and local coastal communities. In addition to heat stress, poor nutrition and catch loss, they face land tenure insecurity, coastal erosion, property damage, marine pollution and ecosystem degradation. Increased indebtedness and distress migration complete the picture along these ancient littoral stretches today.

The Paris Agreement mandated economic and social transformation based on the best available science, functioning on a five-year cycle of progressively ambitious climate action. India's climate action plans articulate steps towards the latest nationally determined contributions (NDCs) and steps towards climate adaptation. The last IPCC stocktake targets global greenhouse gas emission reductions by 43% to achieve the 2030 goal of 1.5°C temperature rise. Countries are way off track in meeting these goals, and are required to triple their renewable energy capacity and doubling of energy efficiency improvements by 2030. Alongside they are expected to accelerate the fair and steady phase-down of unabated fossil fuel use, with developed countries taking the lead. India's eight-point NDC includes commitments to reduce emissions intensity of its GDP by 45% by 2030 from 2005 levels and create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

Despite its position as a monsoon fueled, maritime nation of the Global South, there are still several blind spots on the coastal communities and ecosystems of India, which impact the nation's mitigation targets and adaptation plans.

We urgently need a clear design for approaching coastal adaptation and building resilience for India's populations against distress. Similarly the social and ecological knowledge necessary for meaningful mitigation through blue carbon and climate financing are currently ill-defined and designed. Together these absences threaten coastal communities' rights over coastal-marine commons and possible futures of sustainable and dignified livelihoods.



The triple planetary crises of environment pollution, climate change and biodiversity loss highlighted at successive UNFCCC Conference of the Parties affect all of humanity - rich and poor. However, it continues to exert the most severe toll on marginalised and vulnerable marine small scale fishers of India. Biodiversity targets set as well as certain nature-based solutions are double-edged swords – capable of safeguarding but also damaging coastal ecological commons that millions of India's SSF and local communities depend on.



Climate action in coastal India that engages blue carbon, the blue economy and biodiversity conservation through spatial measures such as the 30x30 pledge of the Kunming-Montreal Global Biodiversity Framework, must translate into practices that promote blue justice for the Global South.

This vision guides Dakshin's diverse interventions on climate action.

³ The Framework was established at COP 15 to the UN Convention on Biological Diversity in Montreal, Canada in December 2022 and entails 23 commitments protecting 30% of the planet's land and oceans for nature by 2030 (the "30x30" pledge) and restoring 30% of the planet's degraded ecosystems.

Dakshin's approach to the climate crisis

The climate crisis is well on its way towards creating planetary-level, pervasive, and often irreversible ecological and hydrogeological shifts. This impacts the sites and focus of Dakshin's work: coastal, marine and island ecosystems and the wellbeing of communities directly dependent on them.

Since climate impacts are poorly monitored, analysed and acted upon across the Indian Ocean, organisations like Dakshin, with disciplinary, on-ground and collaborative strengths, can play a catalytic role. Our climate actions aim to strengthen democratic responses that are pragmatic, ethical and impactful in engaging people of the Indian Ocean in meeting the poly-crisis affecting their futures.

To address these challenges systematically, Dakshin works across multiple domains that shape climate outcomes in coastal and marine landscapes. This includes generating knowledge on the impacts of climate change through long-term research and monitoring, working directly with coastal communities on climate adaptation measures, supporting government agencies and the private sector in mitigation and adaptation goals. This involves working across cross sectoral areas of coastal-marine livelihoods, conservation practices, health and governance, and strengthening public engagement and grassroots capacities for climate action.

Dakshin also works at scale to advance its tools and platforms related to climate communication, blue carbon, and sustainable blue economy development through Ocean Solutions, a facility that connects on-ground knowledge and experience with broader policy and sector-level processes. The aim is to support informed decision-making and advance equitable and sustainable climate futures across the Indian Ocean.



Climate-wise interventions

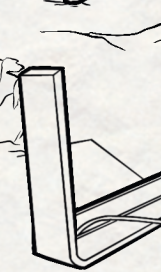
Monitoring nests to understand climate impacts on hatchling sex ratios



Assessing coral reefs' responses to changing environmental stressors

Developing nature-based strategies to combat marine degradation and enhance well-being, including blue carbon mapping, sustainable ocean enterprises and responsible carbon pathways

Mapping coastal areas to secure tenure for SSF and local communities



Building local access to health, sports and well-being

Knowledge for Warming Oceans



OCEAN SOLUTIONS

Ocean Solutions is Dakshin's solutions-oriented facility that provides policy scaffolding to our integrated SeaChange interventions and our stand alone work on key thematic areas. It is established to respond to emerging opportunities and intersecting challenges associated with blue economy development, blue carbon, and climate change across India's coastal and marine regions.

As investments in ocean-based development, climate action, and blue carbon continue to grow, there is increasing need for approaches that balance ecological sustainability, livelihood security, and economic development. Ocean Solutions addresses this gap by translating lessons, evidence, and experience from Dakshin's research and field programmes into practical solutions and decision-support tools.

The facility works across a range of interconnected themes, including blue foods, livelihoods and enterprises, blue carbon, ocean governance, health and wellbeing, marine conservation, and resource security. Through collaboration with governments, researchers, practitioners, enterprises, civil society organisations, and coastal communities, Ocean Solutions seeks to accelerate sector-level shifts and advance true solutions for sustainable, equitable, and resilient pathways for ocean development across the Indian Ocean.

BLUE CARBON ATLAS of INDIA

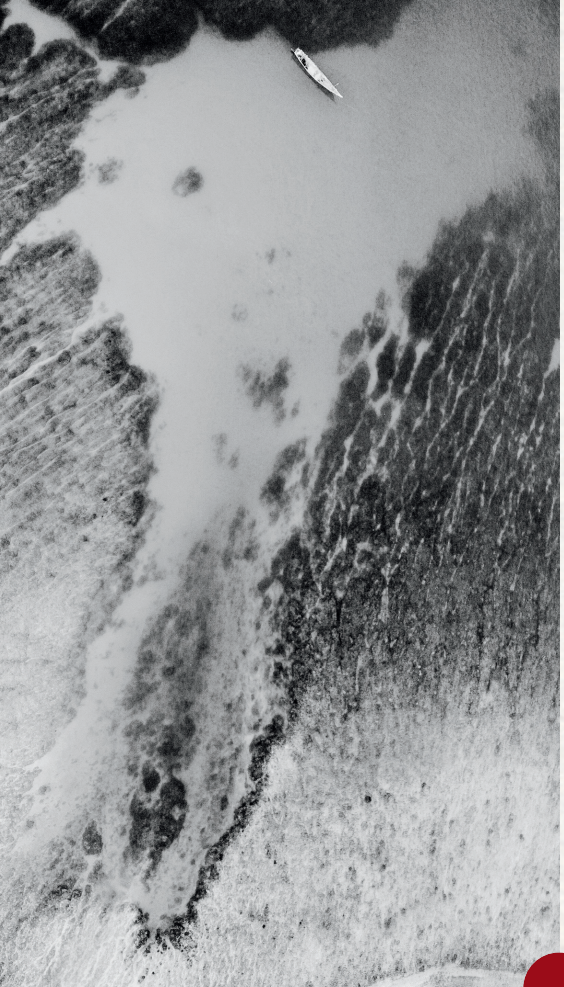
The Blue Carbon Atlas of India is a national web GIS platform currently in development through Dakshin's Ocean Solutions initiative. It will map, monitor, and analyse India's blue carbon ecosystems, including mangroves, seagrasses, and saltmarshes, to support climate planning, coastal governance, and blue carbon finance.

India's coastline stretches over 11,000 kilometres and supports extensive blue carbon ecosystems across its mainland and island territories. These ecosystems are increasingly recognised for their role in climate mitigation. Mangroves, for instance, can store 5–10 times more carbon per unit area than terrestrial rainforests while also supporting biodiversity, protecting coastlines, sustaining fisheries, and contributing to the livelihoods of coastal communities. Similarly, seagrasses sequester carbon at rates comparable to tropical forests and are critical for marine biodiversity and fisheries.

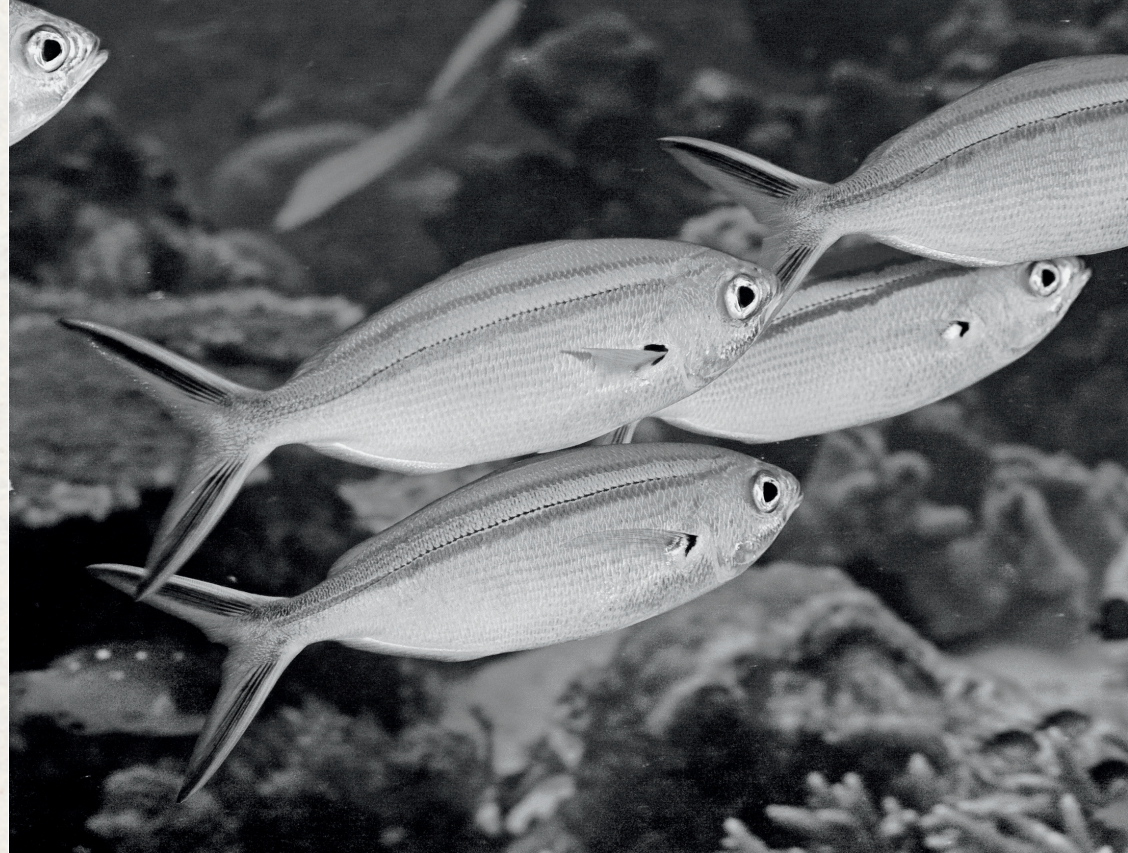
As interest in blue carbon, climate finance, and ocean-based development grows, there is an increasing need for robust data to inform policy, investment, and conservation decisions. Yet information on India's blue carbon ecosystems remains fragmented, limiting their integration into climate planning, coastal governance, ecosystem restoration, and emerging blue carbon finance mechanisms. While India's climate commitments include creating additional carbon sinks, blue carbon ecosystems remain underrepresented in national climate discourse and planning.

To address this gap, Dakshin has completed a comprehensive review of scientific literature, spatial datasets, and policy frameworks related to India's blue carbon ecosystems. A meta-analysis of available data estimates India's total blue carbon stock at approximately 108 million tonnes, with mangroves contributing the largest share, followed by seagrasses and saltmarshes. These findings provide one of the first consolidated assessments of India's blue carbon potential and form the scientific foundation for the Atlas.

Building on this, Dakshin has completed assessments for mangroves for the Andaman & Nicobar Islands as a pilot for the Blue Carbon Atlas of India, generating spatial products including mangrove extent, carbon estimates, and decadal trend analyses. Dakshin participates in select global discourses on blue carbon, such as with the International Blue Carbon Scientific Working Group and at national initiatives of the Ministry of Environment, Forest and Climate Change officials and state forest departments, to help streamline global datasets and build partnerships for implementation and scale. We are a partner and contributor to the Smithsonian Institute's Marine Global Earth Observatory (Marine GEO Institute), sharing data protocols and methodologies.



The Atlas will incorporate ecological information alongside socio-economic indicators, including governance systems, livelihood opportunities, ecosystem services, biodiversity values, restoration potential, and community vulnerability. It will be developed in phases, starting with the Andaman Islands and Odisha, and will gradually expand to additional sites across India.



By strengthening the scientific evidence base for blue carbon in India, the Atlas will support informed decision-making around conservation, climate action, and sustainable development.

It will help ensure that future investments in blue carbon finance and carbon markets are grounded in scientific evidence, local realities, and transparent equitable outcomes for coastal communities and marine ecosystems.

Beyond India, the insights generated have the potential to inform policy and steer carbon market-based conservation across coastal and marine regions of the Indian Ocean.

BLUE ECONOMY ENTERPRISES (BEE) HIVE

Related to the Blue Carbon Atlas of India is Dakshin's incubation of a customised Blue Economy Enterprises (BEE) Hive. Using the Blue Carbon Atlas as its core knowledge base, the BEE Hive aims to curate sustainable and equitable marine resource utilisation pathways in India's blue economy trajectory. Current gaps in India's blue economy design include poor distribution of benefits associated with blue carbon and biodiverse ecosystems, which possess enormous carbon sequestration and ecosystem service potential. As India seeks to harness ocean resources for economic development, solutions to prevent overexploitation and co-design sustainable, equitable pathways are essential for maritime India's future.



The Blue Economy Enterprises (BEE) Hive is currently in its pilot phase and is being designed to complement the Blue Carbon Atlas of India and Dakshin's entrepreneurship and livelihoods interventions. This curation will act as a clearinghouse for ocean-based climate action that has intersectoral co-benefits across oceanic India. The BEE Hive will identify tested opportunities for climate action and blue economy support that are at varying phases - pilots, incubation and acceleration or scaling. Successful models will hold criteria and scientifically established design rules of sustainability, equity and cultural specificity. This approach diverges from conventional blue economy models that include overlook these blue justice-centred criteria.

In upcoming phases of the BEE Hive, key outputs of this comprehensive initiative will include heatmaps of blue carbon sites, site characterisation reports emphasising ecological and social properties, including equity and justice considerations, and pilot enterprise feasibility reports for potential interventions across different regional contexts in India. Additionally, the initiative aims to integrate or partner with platforms and networks focusing on climate action, while engaging donors and implementers to support the long-term sustainability of these efforts.

Together, the Atlas and the BEE Hive seek to create a pathway **from cutting edge interdisciplinary science to on-ground implementation.** By linking scientific evidence, climate action, livelihood opportunities, and equitable benefit-sharing, they aim to support more sustainable and inclusive blue economy pathways across India and the wider Indian Ocean region.



OCEAN SENTINELS & OCEAN STEWARDS



The Andaman Islands have faced severe environmental challenges over the past forty years, including coral bleaching events, the 2004 Indian Ocean tsunami, and human-caused pressures such as coastal development and overfishing. These factors have significantly harmed marine ecosystems, such as coral reefs, impacting industries reliant on them, including fisheries and tourism. Mangroves and rainforests in this site are also at risk. However, there is limited understanding of these systems due to resource constraints and a lack of local trained personnel. Conventional survey methods are costly and exclude local communities, who possess valuable ecological knowledge. Therefore, affordable and inclusive approaches are needed to monitor and manage these ecological resources while involving local stakeholders in climate monitoring and action.

The primary goal of our Ocean Sentinels initiative is to address concerns in rare ecosystems such as the Andaman Islands, through innovative approaches that integrate science with inclusive processes, building capacities at the grassroots level to understand, monitor, and conserve reef-to-rainforest ecosystems.

Dakshin harnesses the concept of 'climate and ecosystem sentinels' to promote participatory community monitoring. Sentinels are species with early warning potential that can inform key ecosystem processes, health, or whole system dynamics to achieve maximum conservation and climate gains. The objectives of this project include identifying climate and ecosystem sentinels across reef, mangrove, and rainforest ecosystems, and developing easy-to-implement, low-cost, low-tech protocols for community-led monitoring. Under this initiative we would identify cohorts of highly motivated Ocean Stewards who will be trained to collaboratively implement co-created monitoring protocols, collect data, and act as master trainers. A community-contributed and dynamic database will be generated through participatory monitoring to contribute to global climate datasets. The monitoring of Ocean Sentinels by Ocean Steward will facilitate the development of co-management measures that benefit key species and ecosystems while promoting sustainable use and climate benefits, mobilising collective action towards climate-friendly practices and the conservation of blue carbon sites.

This project is both unique and innovative for the Indian landscape as it democratises to the grassroots, ideas from the ecological sciences that harness frugal science as well as low-cost field methods that involve local community members in both monitoring, assessing and managing marine resources. Unlike conventional citizen science projects that focus solely on data generation, this project aims to strengthen connections between people and their ecosystems, leveraging their ecological knowledge-making practices.

The Ocean Sentinels initiative will result in the identification of archipelago-wide climate sentinel species and in the development of contextualised protocols for long-term monitoring, and capacity-building of Ocean Stewards for the monitoring and managing marine ecosystems, threatened species and fisheries.

This project's target audience includes local communities, settlers, and government bodies. Upon completion, the project aims to establish climate monitoring and resource management capacities at the grassroots level across multiple islands and villages in the Andaman Islands. By understanding and monitoring sentinels, the project aims to create widespread climate literacy and environmental awareness, integrate existing knowledge and skills of local communities into mainstream conservation efforts, and build a larger constituency of environmentally conscious youth in the Andaman Islands.

STRATEGIC CLIMATE COMMUNICATION

Climate change is experienced differently across ecosystems and communities, and understanding how these impacts are experienced is fundamentally a communication challenge. Along India's coasts, rising temperatures, extreme events, and shifts in marine ecosystems affect livelihoods, health, and wellbeing in ways that rarely surface in mainstream climate discourse. Storytelling and strategic communication are critical for raising awareness, informing policy, and supporting adaptation, but must be tailored to the right audiences and decision-making spaces to be effective.

Dakshin's Climate Communications work seeks to shift India's agrarian-dominated climate narrative by bringing greater visibility to the experiences of coastal and marine communities and ecosystems. The initiative works with grassroots governance spaces and specialised government agencies to assess and strengthen their capacities to understand, articulate, and respond to climate impacts in coastal India. It includes assessments of state-level coastal climate policies and their blind spots, as well as climate communication needs among grassroots small-scale fisheries catalysts.



Currently underway in Odisha and Tamil Nadu, our strategic climate communications interventions draw on academic insights and pedagogical approaches to assess climate-related knowledge within key government departments dealing with coastal and marine systems. These insights inform the development of strategic communication materials and capacity-building interventions. Simultaneously, Dakshin works with grassroots fellows and community actors to co-develop climate communication modules that document, assess, and communicate climate impacts and adaptation needs through lived experience.

One communicative output is Heat Stories, a creative product that highlights the impacts of extreme heat on coastal communities, while spotlighting urgent areas of adaptation to optimise the benefits of intervention. It records how coastal communities experience, respond to, and adapt to heat stress in real time, through locally grounded narratives of change agents and impacted groups.

As a key offering of our Ocean Solutions facility, strategic Climate Communications ensures a) critical ocean and climate capacities are built across translocal policy influencers and b) that priorities, and knowledge of vulnerable communities inform adaptation options across geographies in coastal India. This dual intervention is key to optimise available financial and human resources for climate action.

LONG TERM ECOLOGICAL OBSERVATORIES (LTEO)

Human-induced climate change is a primary driver of ecosystem decline. To mitigate its impacts, it is critical to understand how natural systems respond to changing environmental conditions, particularly in highly resource-dependent countries like India. However, scientists still have a limited understanding of how climatic and other anthropogenic pressures affect natural systems over the long term and, consequently, the human societies that depend on them.



To address this gap, the Ministry of Environment, Forests and Climate Change (MoEF&CC) established the Long Term Ecological Observatories (LTEO) initiative, a multi-institutional and interdisciplinary effort to understand the impacts of climate change and other anthropogenic disturbances on select ecosystems and taxa. LTEO supports long-term monitoring of forests, grasslands, soils, herpetofauna, birds, invertebrates, animal movement, and marine ecosystems across six index sites in India.

The marine component of LTEO is based in the Andaman and Nicobar Islands and focuses on coral reefs, seagrass meadows, sea turtles, reef fish, and environmental parameters to understand how these systems respond to climatic and anthropogenic disturbances such as overfishing, marine pollution, and coastal development. Dakshin Foundation leads the Marine LTEO consortium in collaboration with the Nature Conservation Foundation (NCF) and the Centre for Ecological Sciences at the Indian Institute of Science (IISc). Within this framework, Dakshin studies species and habitats that act as ecosystem engineers and play an important role in maintaining ecological stability. In addition to coral reef research, Dakshin's researchers contribute to the monitoring of leatherback sea turtles and environmental parameters across the islands.

The coral reef monitoring work under the Marine LTEO aims to understand and document the impact of climate change on coral ecosystems. The team monitors ten coral reefs within Mahatma Gandhi Marine National Park across three islands, including both sheltered and exposed reef systems. This design allows researchers to understand how different environmental conditions influence reef resilience and vulnerability. The team uses underwater transects and reef imagery to track changes in reef condition over time, including coral and algal cover, the composition of coral genera, and broader shifts in reef communities. To better understand emerging stressors, the team has deployed SedPods to measure sediment accumulation rates on reefs. The team also deploys underwater temperature loggers across monitoring sites to record water temperatures and track environmental change over time.

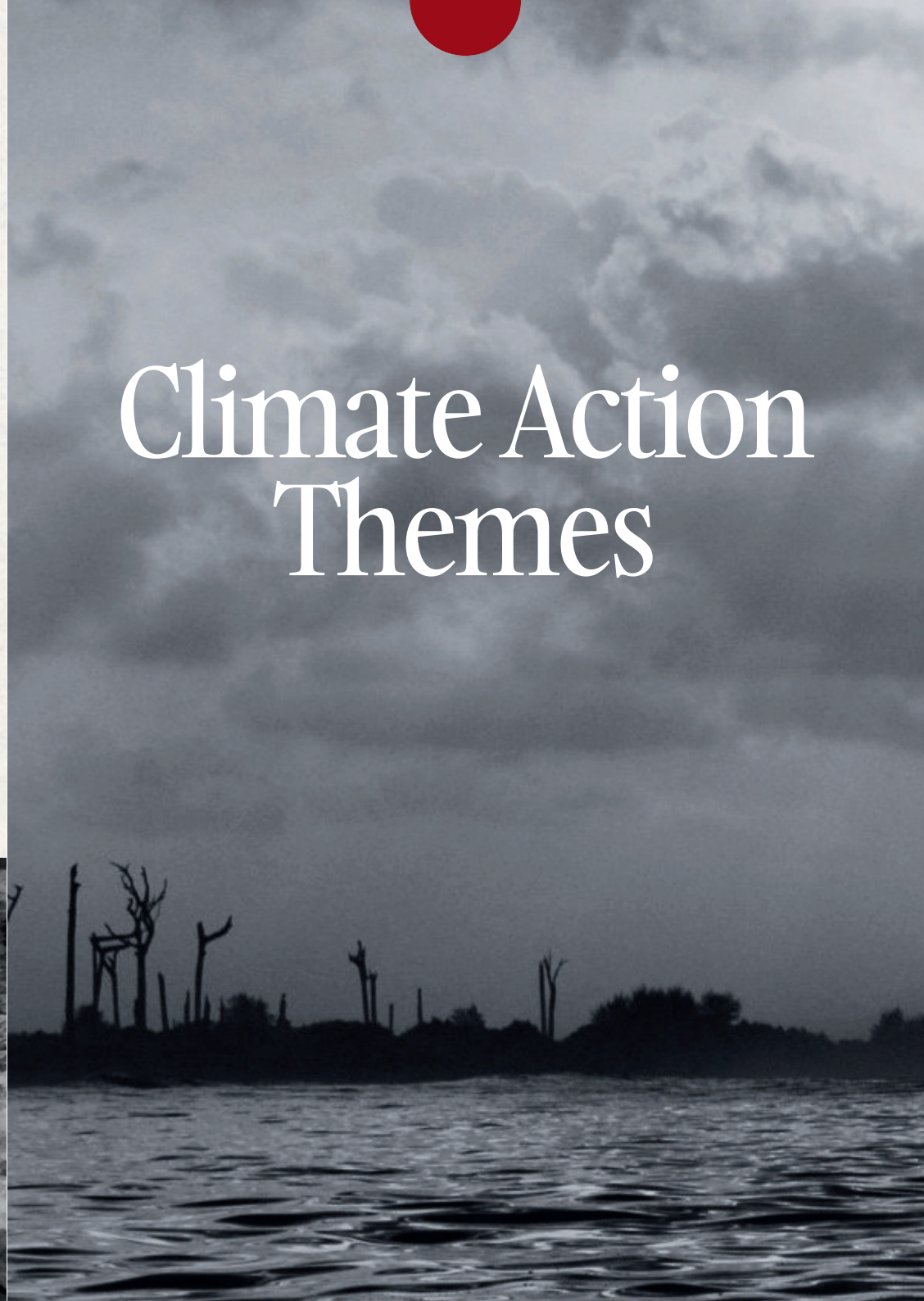


In addition to coral reef monitoring, the team, in collaboration with IISc, studies reef fish populations, which play critical roles in maintaining reef health and ecosystem functioning. Researchers use underwater visual census surveys to record the abundance, diversity, and size-class distribution of different functional groups of reef fish. Herbivorous fish, for example, help control algal growth and maintain conditions that support coral health. The team also uses underwater video surveys to observe herbivorous fish feeding behaviour, a key process that supports reef resilience. More recently, researchers conducted pilot surveys to examine reef carbonate budgets and better understand the balance between reef growth and erosion across monitored sites. Alongside marine research, Dakshin's field base, ANET, serves as the primary field station for LTEO activities in the Andaman Islands and supports both marine and terrestrial research.

Together, these efforts generate a growing evidence base for conservation planning and adaptive management in the Andaman Islands. The long-term datasets generated through LTEO support decision-making by Forest Department authorities, conservation practitioners, and policymakers while contributing to broader scientific understanding of how marine ecosystems respond to climatic and anthropogenic pressures. The work supports the conservation of coral reefs and reef fish populations through long-term monitoring and helps identify priorities for conservation action. It also facilitates adaptation by helping stakeholders understand their changing marine environment, including the effects of warming seas and ocean acidification.



Climate Action Themes





EVIDENCE BUILDING

A major barrier to effective climate action is the lack of long-term evidence on how climate change is affecting coastal and marine ecosystems and the communities that depend on them. Dakshin addresses this gap through sustained research, monitoring, and documentation across India's coasts and islands.

Our Marine Flagships programme has built long-term datasets on sea turtle populations and marine ecosystems in Odisha, the Andaman and Nicobar Islands, and Lakshadweep. This includes monitoring nesting and foraging sites for olive ridleys, leatherbacks, and green turtles, and studying how climate-related changes such as rising temperatures, shifting beach dynamics, and changes in seagrass availability affect turtle populations and their habitats.

In Odisha, Dakshin's work is helping build evidence on how nest temperatures may influence hatchling sex ratios and the future viability of olive ridley populations. In the Andaman and Nicobar Islands, one of the longest-running leatherback monitoring efforts in the northern Indian Ocean is generating insights into nesting ecology, migration routes, and population dynamics. In Lakshadweep, studies on green turtles and seagrass ecosystems are helping understand turtle movement, lagoon health, and the links between herbivory, habitat condition, and climate resilience.

Dakshin's Sustainable Fisheries programme examines how changing weather patterns, sea temperatures, and ecosystem conditions affect fisheries and coastal livelihoods. This work includes community discussions on shifting fishing days and catch patterns, monitoring of critical habitats such as seagrass meadows, and efforts to support more sustainable transitions in fisheries where current practices carry high ecological and carbon costs.





Our Communities and Resource Governance programme builds democratised knowledge and evidence on climate impacts through storytelling, documentation, community knowledge platforms, and through socio-legal policy analyses. Initiatives such Migration Diaries, Sea Lexicon, and Heat Stories make visible how coastal communities experience, respond to, and adapt to oceanic elements and climate-related stressors, including extreme heat, livelihood disruption, migration, and changing relationships with the sea. This is complemented by periodic policy assessments and advisories.

Together, these efforts generate evidence that is ecological, social, and empirically robust. This evidence supports conservation planning, informs adaptation strategies, strengthens public understanding of climate risks, and contributes to more grounded decision-making by communities, practitioners, and policymakers.



CLIMATE JUSTICE

Climate adaptation and mitigation efforts can sometimes overlook the impacts on small-scale fishers and other resource-dependent communities. Strengthening the rights and participation of such groups is embedded in Dakshin's mission. Through its Communities and Resource Governance (CRG) programme, Dakshin promotes climate justice by working on the laws, policies, and governance processes that shape the futures of coastal communities and ecosystems.

The programme analyses legal and governance frameworks that affect coastal communities and collaborates with the Sustainable Fisheries and Conservation CrossRoads programmes to ensure that climate-related interventions do not unintentionally disadvantage vulnerable groups.



This includes developing legal primers and learning modules that simplify complex environmental and tenure-related laws, as well as conducting workshops and training programmes that help communities better understand their rights and engage more effectively in governance processes.

By strengthening legal awareness and participation, this work helps coastal communities respond to climate-related challenges, navigate changing environmental conditions, and engage more confidently in decisions that affect their livelihoods and futures. It also enables communities to participate more meaningfully in emerging climate opportunities, including those linked to blue carbon and sustainable blue economy initiatives.

Through these efforts, Dakshin seeks to ensure that coastal communities are not left behind in climate action. By strengthening knowledge, participation, and access to decision-making processes, the programme helps advance more equitable and inclusive approaches to climate resilience and justice.

CLIMATE ADAPTATION

Climate adaptation involves adjusting practices and structures to reduce vulnerability and build the capacity of communities to cope with climate-related risks. Dakshin's adaptation work focuses on three areas: community health, sustainable livelihoods, and strengthening community resilience.

Through its Community Wellbeing and Environment team, Dakshin works to improve health outcomes in coastal communities by identifying barriers to healthcare access and by training Community Catalysts to meet these gaps in diagnosis, access and care. The Catalysts initiate health conversations, map healthcare-seeking behaviours, and connect communities with public services. Current work examines how seasonal and occupational factors, particularly heat stress and climate-induced health risks, affect community health. Our interventions cover critical crosscutting themes including adolescent health, mental health, non-communicable diseases, and WASH.



Across coastal India's small-scale fishers face declining fish stocks, adverse weather, intersectoral conflicts, and coastal development pressures. Dakshin's Sustainable Fisheries and Livelihoods programme works to strengthen community institutions, improve access to government entitlements, and support income diversification. We are developing developing women-centred livelihood models focused on locally available marine resources, including fish amino acid, fish hydrolysate, and seaweed-based value addition. Pilot initiatives support community-owned enterprises, improve market linkages, and promote more equitable benefit-sharing from marine resources. Our Sustainable Fisheries programme simultaneously initiates co-management processes and participatory mapping of fishing grounds and critical marine ecosystems, to generate datasets that support fisheries management and community stewardship along with livelihood interventions.

Lastly, our curated capacity building, skilling and leadership programmes - the Coastal Grassroots Fellowship, the Ocean Stewards programme and the Youth Ambassador programme, **support women, and youth in building the needed resilience through skills, knowledge and collective local mentorship needed to adapt and lead actions in the context of changing climate and oceans.**



OUTREACH AND CAPACITY BUILDING

Outreach and capacity-building are central to Dakshin's climate work, and span multiple programmes across its geographies of intervention.

Past cohorts of our capacity building programmes (CGF and Ocean Stewards) have collected migration data, mapped coastal commons, and documented community experiences of climate impacts and livelihood change.

In the Andaman and Nicobar Islands, our Marine Flagships programme conducts outreach and capacity-building for leatherback turtle conservation, with sessions for students and training for forest department staff on conservation protocols, research techniques, and nest temperature monitoring. The Centre for Island Sustainability complements this through coral reef monitoring, intertidal biodiversity education, and training for youth, tourism stakeholders, and forest department staff.

In Lakshadweep, the Sustainable Fisheries programme works with pole and line tuna fishers to keep traditional fishing economically viable, reducing pressure on reef fisheries. The programme promotes lagoon health through outreach campaigns, clean-up drives, and materials on sustainable practices, developed in partnership with youth clubs, self-help groups, and fisher collectives.



Beyond local efforts, Dakshin participates in national and international forums on fisheries, marine ingredients, and blue food systems through initiatives such as Blue Food Futures. These engagements advocate for co-management, community stewardship, and policies that protect the rights and livelihoods of small-scale fishers in fisheries governance.

Dakshin's publications and manuals contain a wide variety of educational and awareness material that relate to climate and conservation.

Artwork credits: Prabha Mallya and Current Conservation



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CLIMATE MITIGATION



Climate mitigation requires reducing greenhouse gas emissions and strengthening the capacity of natural systems to absorb and store carbon. Dakshin contributes to this through ecosystem-based approaches, blue carbon initiatives, and efforts to improve waste management in coastal and island regions.

Central to Dakshin's mitigation work is the Blue Carbon Atlas of India, currently in development through the Ocean Solutions initiative. Together with the Blue Economy Enterprises (BEE) Hive, the Atlas strengthens the evidence base on India's blue carbon ecosystems and supports equitable pathways for climate action, contributing to the conservation and sustainable management of ecosystems that play an important role in carbon sequestration. Waste and plastics represent a second area of mitigation work.



In the Andaman and Nicobar Islands, waste management infrastructure struggles to keep pace with rising consumption, tourism, population growth, and waste transported by ocean currents from neighbouring countries. Historically, waste has either gone to landfills or been burnt, contributing to greenhouse gas emissions. Through its SeaChange approach, Dakshin works with a range of stakeholders to strengthen the administration's waste management system, addressing gaps in planning, infrastructure, technical capacity, and resource allocation.





Community engagement has expanded through the Youth Ambassador programme in Wandoor, where young women lead efforts on source segregation, composting, and beach waste management, and through Community Catalysts in Junglighat who mobilise residents, fisher groups, and local authorities.

Beyond local interventions, Dakshin contributes to wider conversations on marine pollution through partnerships, research, and knowledge exchange, connecting local experiences with national and international discussions on waste governance and climate mitigation.



CLIMATE POLICY SUPPORT



Effective climate policy for coastal and marine ecosystems requires more than scientific evidence. It also needs public understanding, informed government action, and policy implementation that reflects ecological realities and community needs.

Dakshin's climate policy work is grounded in long-term engagement with coastal and island communities across Odisha, Tamil Nadu, Lakshadweep, and the Andaman and Nicobar Islands. Through this field presence, Dakshin generates evidence and facilitates dialogue on fisheries governance, coastal commons, livelihoods, marine conservation, and climate resilience. It also brings community perspectives and ground realities into policy discussions.

Through SeaChange, Dakshin has built relationships with community institutions, local governments, and state agencies. These relationships create opportunities to strengthen policy implementation, improve access to rights and entitlements, and support more participatory governance.

Ocean Solutions builds on this foundation. As Dakshin's solutions-oriented facility, it translates field experience, evidence, and lessons from its programmes into policy-relevant knowledge and action. Through tools, platforms, partnerships, strategic communications, and convening, it connects field realities with policy spaces and supports more evidence-based, equitable, and ecologically sustainable blue growth across the Indian Ocean.

Together, Dakshin's scientific evidence, community partnerships, formal governance engagement, and Ocean Solutions work can support climate responses that are socially inclusive and grounded in the realities of coastal and island regions.



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Dakshin Foundation envisions a more stable future for coastal India, where healthy ecosystems and thriving communities go hand in hand. Our vision focuses on improving biodiversity, enhancing ecosystem services, and securing livelihoods for coastal communities reliant on natural resources. Over the next five years, Dakshin aims to bring transformative change to a quarter of fishing villages along the Indian coastline, empowering local leadership to drive environmental and social progress.

Your involvement is crucial to our mission. Whether through collaboration, support, or amplifying our message, your participation fuels our efforts. Explore opportunities to support our work on our website or reach out to us directly at info@dakshin.org

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