

# EXECUTIVE SUMMARY

## TANGLED ROOTS AND CHANGING TIDES

## MANGROVE GOVERNANCE FOR CONSERVATION AND SUSTAINABLE USE



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## MANGROVE GOVERNANCE FOR CONSERVATION AND SUSTAINABLE USE

Mangroves cut across ecosystems, sectors, jurisdictions and governance regimes. While few countries have a specific mangrove law, many national and international regimes apply to or affect mangroves in some way. Marine and coastal law can protect mangroves as fish habitat and guardians of coastal integrity. Freshwater law can address pollution and allocate water resources. Mangroves can be found within protected areas or specially designated forests, while species of mangrove and species that live within mangroves can have protected species status. Land use planning, permitting and environmental impact assessment processes apply to activities that affect mangroves. Basic governance frameworks relating to institutional setup, rulemaking procedures, budgetary allocation, judicial systems and land and resource tenure are critical determinants of how, and how effectively, mangroves can be managed. Guiding norms and concepts from international law and national constitutions shape treatment of mangroves under applicable law.

Mangrove governance involves local and regional actors as well as national and international policymakers. Customary authorities and community groups play key roles, whether they are formally recognized in constitutions, legislation or contracts, or operate without formal legal backing. Legal pluralism---overlapping systems of customary, statutory, community and common law norms and practices---characterizes mangrove governance in many countries.

**For more detailed information and references, see the full publication:**

Slobodian, L., Badoz, L., eds. (2019). *Tangled Roots and Changing Tides: mangrove governance for conservation and sustainable use*. IUCN, Gland, Switzerland, and WWF Germany, Berlin, Germany.

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Global and regional legal instruments create obligations relating to mangrove conservation and use, as well as frameworks for international cooperation and investment. Around the world, 268 Ramsar sites and 19 World Heritage sites contain mangroves. Mangroves are explicitly included in Nationally Determined Contributions (NDCs) under the Paris Agreement and National Biodiversity Strategy and Action Plans (NBSAPs) under the Convention on Biological Diversity (CBD). Internationally recognized principles such as the precautionary principle, the polluter pays principle and various principles related to procedural rights and sustainable development and use are reflected in national legislation and judicial decisions relevant for mangroves.

**Despite the plethora of applicable laws, mangroves continue to deteriorate rapidly, driven by urbanization, population growth and unsustainable development.** Mangroves are cleared for conversion of land for shrimp production and rice farming and other forms of aquaculture and agriculture. Their unique wood quality makes

them a favoured construction material for houses and boats. Mangrove wood is also used for charcoal and firewood to meet energy needs of growing cities and local communities. Coastal infrastructure development, salt mining, oil exploration and tourism can all drive destruction and pollution of mangroves. Upstream diversion and pollution of watersources from agricultural and urban sources contribute to degradation of mangroves downstream. Existing legal tools are failing to address these and other threats leading to a global decline in mangrove health and coverage.

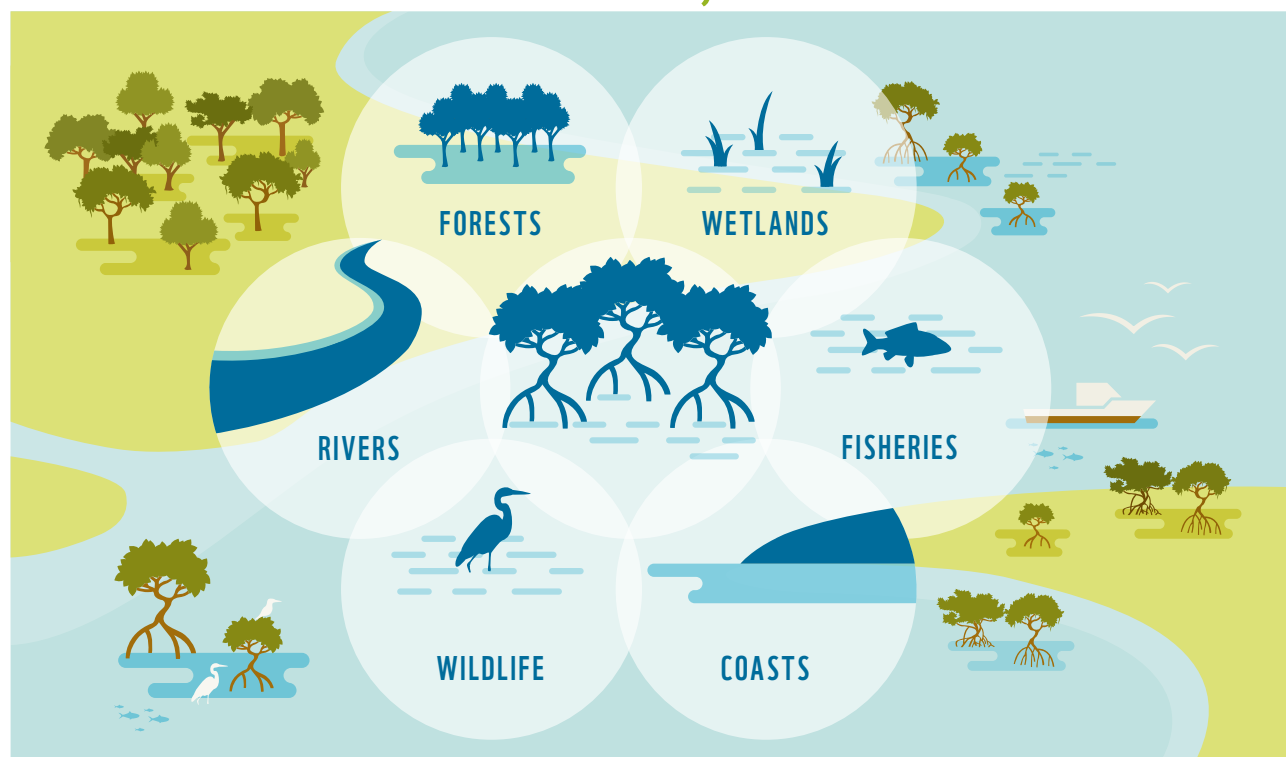
This report explores the many legal and governance approaches and enabling conditions relating to mangroves in an attempt to understand what works and under what conditions, and to provide recommendations on how to improve governance for mangrove protection and sustainable use. It begins with an assessment of international and national legal and policy instruments, and proceeds to examine how these instruments are implemented and with what results.

### Seven case studies illustrate how mangrove governance plays out in practice.

Each case study undertakes a four step analysis, asking:

- 1) how do legal and policy instruments relate to mangroves?
- 2) how are relevant institutions structured and how well do they operate?
- 3) how do instruments and institutions affect the behaviour of users, government officials and other stakeholders?
- 4) how do instruments, institutions and behaviour impact the health of mangrove ecosystems?

## MANGROVES AT THE INTERSECTION OF SECTORS, ECOSYSTEMS AND LEGAL FRAMEWORKS





## COSTA RICA

Our analysis shows that in **Costa Rica** a solid legal framework has not been enough to protect mangroves from continued degradation. An extensive system of protected areas has been shown to be an effective mechanism for conservation of mangrove and wetland ecosystems, but can also provide a haven for drug traffickers. The National Wetlands Inventory is a promising tool for informing government policy and action, but it needs to be used to inform planning processes at the national and local levels. The Environmental Administrative Tribunal provides an example of how a Green Court can contribute to enforcement of environmental regulations, as long as it has sufficient resources and support. Additional guidance and improved planning and coordination for institutions and stakeholders are needed to fully safeguard the health of mangroves in the country.

## KENYA

Environmental Impact Assessments and Strategic Environment Assessments provide key tools for mangrove conservation in **Kenya**, grounded in a constitutional right to a healthy environment. The 2017-2027 Mangrove Ecosystem Management Plan lays out zones with different permitted activities, and programmes for addressing management challenges. Community initiatives are a vital part of mangrove governance, but need more support from local and national government. Overall, there is a need for more clarity on institutional arrangements and how institutions should be coordinated with each other and with the Mangrove Ecosystem Management Plan.

## MADAGASCAR

Community groups or Fokonolona are primary agents of natural resource governance in **Madagascar**. Fokonolona are recognized in the Constitution as responsible for the natural and cultural environment, and operate through Dina, collective agreements that represent social codes. This system has been incorporated into laws on protected areas and community resource management, which have been used to set up

systems of community management of mangrove areas. Lack of clarity on roles and responsibilities of different authorities and lack of capacity and legal power and authority on the part of local communities hampers the effectiveness of these systems. However, there is evidence that with civil society support and sufficient recognition, community management can be an effective mechanism for ensuring sustainability of mangrove ecosystems.

## MOZAMBIQUE

The role of mangroves in protecting coastlines from floods and cyclones has brought them to the attention of the highest levels of government in **Mozambique**, particularly in light of recent disasters. However, national policies and legislation related to mangroves are fragmented and potentially conflicting, creating confusion for government agencies and law enforcement as well as users. Despite prohibitions on activities in conservation areas, the government has granted concessions and licenses for oil and gas exploration along almost the entire coast. At the same time, interagency task forces operating in two provinces have demonstrated some success in improving enforcement of mangrove protection law, despite lack of resources.

## PAKISTAN

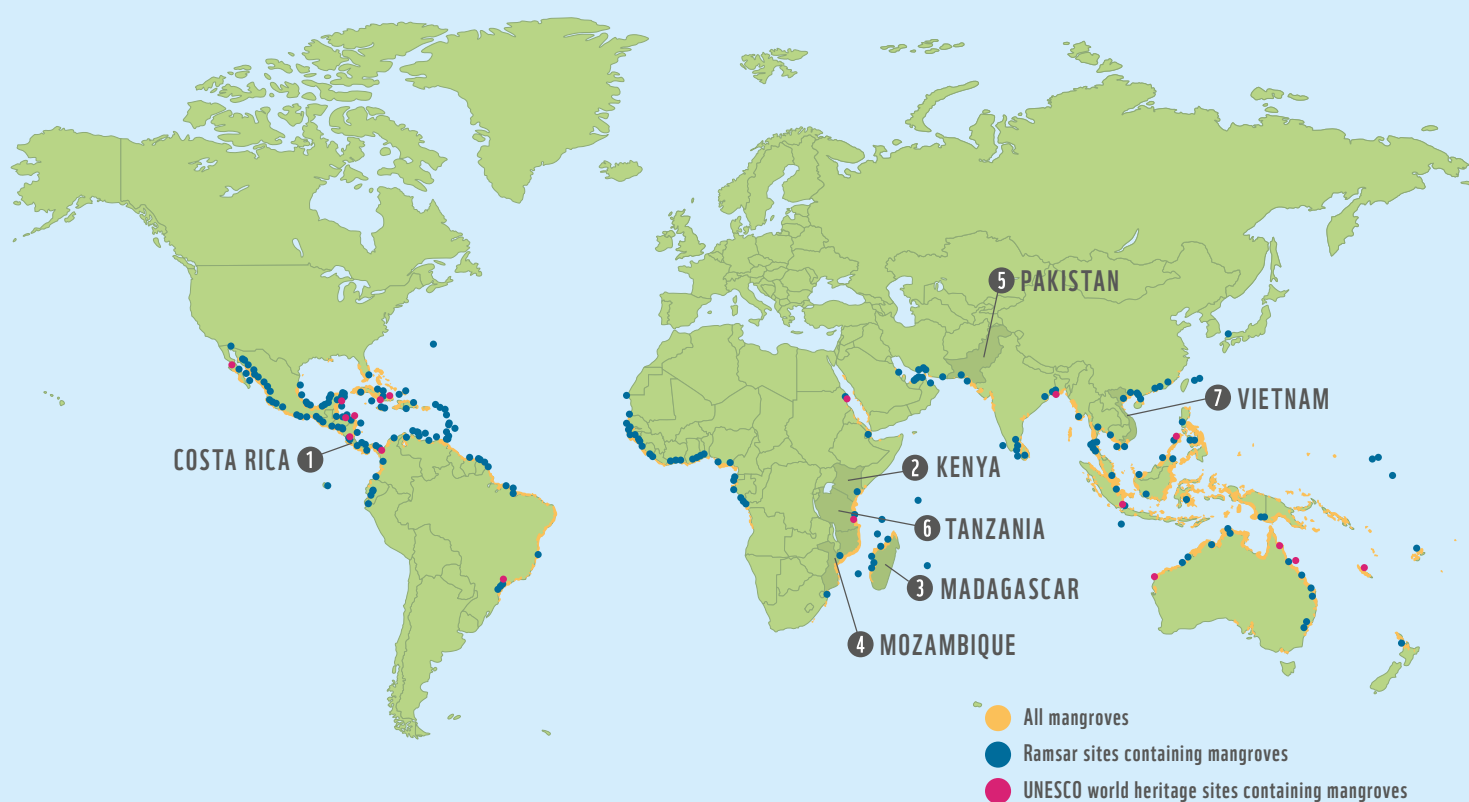
In **Pakistan**, land and timber mafias have taken advantage of weak institutions and limited accountability to clear mangroves with impunity. Coastal communities work to protect and restore mangroves as coastal protection and breeding ground for fish species, through planting projects and political action. In doing so they risk their lives, as community activists have been reportedly killed by mafia involved in clearing. Migrants from other areas also undermine the effectiveness of community mangrove management. Despite this, mangrove coverage is increasing in Pakistan based in part on restoration and rehabilitation initiatives supported by IUCN and WWF. The National Wetlands Policy of 2009 recommends development of a specific regulatory framework for wetlands, including mangroves, but to date such a framework has not been drafted.

## TANZANIA

**Tanzania** lacks specific mangrove legislation, and existing legal instruments related to mangroves are not well implemented because of lack of legal clarity, coordination, financial resources, capacity and public awareness. Policies and regulations designed without participation of local communities are seen as overly restrictive and alienating. However, local communities have expressed an understanding of mangroves' value and the need for sustainability. Joint Forest Management creates a framework for involving communities in mangrove management through joint management agreements which allocate rights, responsibilities and benefits.

## VIETNAM

In recent years, **Vietnam** has improved its mangrove-related legal framework, resulting in an increase in mangrove coverage. This increase belies the reality of degradation: Vietnam's primary mangrove forest is almost completely gone and the majority of mangroves now exist in fragmented, replanted, single-species patches. Gaps and overlaps in legal frameworks and institutional responsibilities, lack of coordination and integration in planning and a confusing and unclear tenure system are systemic flaws in mangrove management. Local political and social structures together with misaligned economic incentives and absence of alternatives create a culture of noncompliance with mangrove protections.



These case studies provide lessons on what ingredients are needed for effective mangrove governance. Different legal tools rely on different social, cultural, economic and political factors as well as enabling legal and institutional frameworks. Community-based management arrangements work best where benefits are direct and immediate, rights and responsibilities are clearly defined, land tenure is clear, communities have sufficient capacity and legal competence to fulfil their responsibilities and women and marginalized groups are empowered and involved. Bans on mangrove use require workable culturally appropriate alternatives, participatory processes and an express legal basis that balances flexibility with safeguards against abuse.

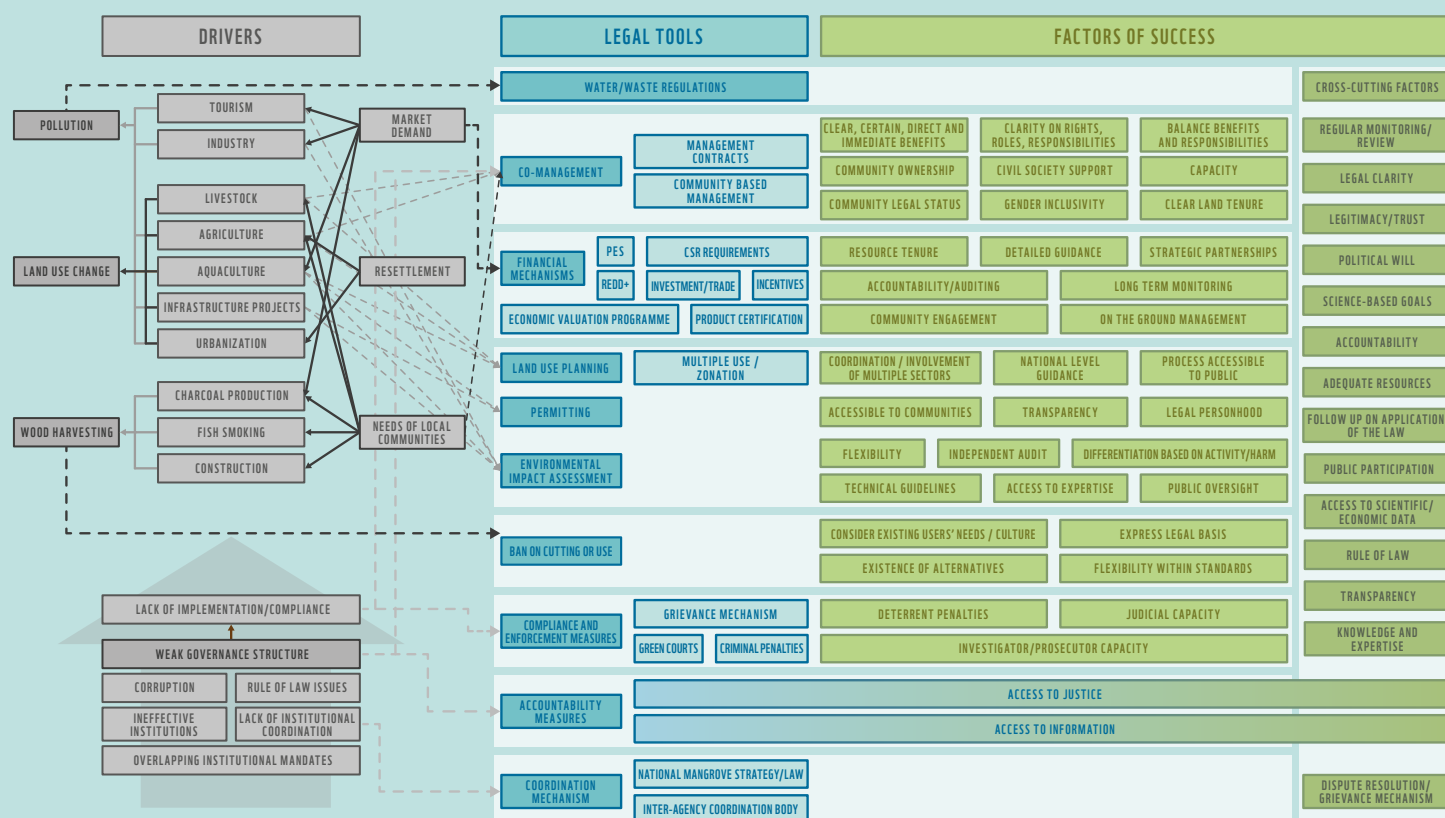
Several factors are cross-cutting. Legal frameworks should be unambiguous and based in science. They should take into account social and economic considerations and potential issues of compliance. Institutional coordination is essential. Institutions also need sufficient capacity, resources and

access to scientific and technical information.

Effective governance depends on transparency and accountability. This can be supported through procedural rights on access to information, participation and access to justice, as well as limiting discretion of decision-makers and assigning authority to the appropriate level. Decisionmaking should be informed by up-to-date scientific information; inventories and regular monitoring of mangrove ecosystems should be required input into planning and other governance processes. Legal effectiveness requires follow up, in the form of regular monitoring and reviewing of implementation, compliance and impact of legal tools.

Mangrove governance is highly tailored to the specific context. There is no single approach that will solve the problem of mangrove degradation in all countries. However, laying out the different options and studying examples and case studies provides an idea of how to effectively govern mangrove ecosystems to promote conservation and sustainable use.

## LEGAL TOOLS AND FACTORS OF SUCCESS





# RECOMMENDATIONS

1. Adopt a **dedicated national-level policy or plan** to compel and coordinate action to conserve and sustainably use mangroves, developed through a participatory process and based on solid science.
2. Ground mangrove conservation and sustainable use in **constitutional norms and international obligations**, and take advantage of existing provisions in **sectoral legal frameworks** relating to fisheries, planning, climate change, forestry and protected areas, among others.
3. Ensure coordination across government agencies through **mechanisms for cooperation, communication and information sharing** and frameworks that **mainstream mangrove considerations** across sectors and **clarify agency mandates** in relation to mangroves.
4. Strengthen institutional capacity at all levels, ensuring sufficient allocation of **financial resources, building capacity and raising awareness** of national and local authorities.
5. Monitor and promote implementation and compliance through **regular progress reports** and development of a **compliance plan**.
6. Adopt measures to ensure **accountability, transparency, participation and access to justice** using SEAs, EIAs, public participation requirements and environmental tribunals.
7. Set up a **national mangrove inventory** to collect and manage data on mangroves and ensure **availability of scientific information** to policymakers and the public.
8. Engage **communities, the private sector and the public** in mangrove management, restoration and governance.
9. Align **incentives for conservation and sustainable use** by ensuring clarity on **land and resource tenure** and creating appropriate **financial incentives** for mangrove conservation.
10. Consider measures to address indirect and underlying drivers of mangrove loss, through **realizing rights of women and girls**, promoting **alternatives to unsustainable activities** and addressing **supply chain sustainability**.





