



WESTERN INDIAN OCEAN MARINE CONSERVATION WORKFORCE TRANSITION FRAMEWORK

Towards 2030: Building a
Resilient Ocean Workforce

2024

WIOMSA and WIOMPAN

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Reef rescuers © Nature Seychelle

EXECUTIVE SUMMARY

The Western Indian Ocean (WIO) is entering a pivotal period for marine conservation. Ecosystems such as coral reefs, seagrasses, mangroves, and offshore habitats face intensifying pressures from climate change, coastal development, fishing pressure, and Blue Economy expansion. At the same time, global frameworks—especially the Kunming–Montreal Global Biodiversity Framework (GBF)—have raised expectations for countries to conserve at least **30% of marine and coastal ecosystems by 2030 (Target 3)**.

While the region is expanding Marine Protected Areas (MPAs), Locally Managed Marine Areas (LMMAs), and other area-based conservation measures, the growth of conservation areas is outpacing **the growth of the workforce needed to manage them**. Across 555,000 km² of MPAs, fewer than 1,000 staff carry responsibility for enforcement, ecological monitoring, digital tools, community engagement, and planning. Community-managed areas rely heavily on volunteers with limited technical or financial support. Meanwhile, modern conservation requires new competencies—digital ecology, climate resilience, blue carbon science, data governance, and co-management—far beyond traditional MPA roles.

This imbalance makes one issue clear: **achieving 30×30 in the WIO is fundamentally a workforce transformation challenge**. Without a skilled, well-supported, future-ready workforce, countries risk creating “paper parks” or expanding conservation boundaries without achieving ecological or social outcomes.

A REGIONAL WORKFORCE TRANSFORMATION FRAMEWORK

To meet this challenge, WIOMSA, WIOMPAN and regional partners have developed the **WIO Marine Conservation Workforce Transformation Framework (2025–2030)**. It provides a coordinated, regionally harmonised system for strengthening skills, careers, and institutions across the region. The Framework is built on the **Train–Retain–Reform (TRR)** model:

- **TRAIN:** expands and diversifies the talent pipeline through competency-based curricula, apprenticeships, digital learning hubs, and inclusion pathways.



Blue leadership training for MPA Practitioners

- **RETAIN:** strengthens career pathways, wellbeing systems, leadership development, and long-term financing to reduce turnover and stabilise institutions.
- **REFORM:** modernises HR systems, mandates, digital infrastructure, and co-management frameworks to create an enabling environment for effective conservation.

PHASED IMPLEMENTATION AND STRONG REGIONAL LEADERSHIP

Implementation will occur in **three overlapping phases**—Foundation (2025–2026), Scale (2025–2028), and Embed (2026–2030)—guided by annual workplans tailored to each country's priorities. Regional activities, including standardised curricula, digital hubs, WIOMPAN exchanges, and policy alignment through the Nairobi Convention, ensure coherence and shared progress.

INVESTMENT AND IMPACT

Delivering the Framework requires **USD 45–60 million** over six years, supported through a blended model of government budgets, philanthropy, Blue Economy partnerships, and conservation trust funds. Returns include stronger management effectiveness, improved climate resilience, reduced IUU fishing, enhanced digital capacity, empowered communities, and long-term sustainability of marine conservation systems.

By 2030, the WIO will have a modern, professional, digitally enabled, and climate-ready workforce capable of delivering effective, equitable, and locally led marine conservation—and achieving GBF Target 3.

1. INTRODUCTION

Marine conservation in the Western Indian Ocean (WIO) is entering one of the most transformative periods in its history. Coastal and marine ecosystems—coral reefs, seagrass meadows, mangroves, lagoons, deep-sea habitats, and transboundary migratory corridors—are facing unprecedented pressures from climate change, coastal development, fishing intensity, habitat loss, and increasing demands from the Blue Economy. At the same time, global and regional governance frameworks are raising the ambition and scale of conservation action.

The Kunming–Montreal Global Biodiversity Framework (GBF) has placed a new level of expectation on countries worldwide to protect, restore, and sustainably manage



Figure 1. Map of the Western Indian Ocean Region.



Transect line monitoring. © Tima Dago, KWS

nature. Most notably, **GBF Target 3** commits governments to conserve at least **30% of marine and coastal ecosystems by 2030**. For the WIO, this represents both a powerful opportunity and a profound challenge. Achieving 30×30 will require not only expanding the footprint of marine conservation areas—MPAs, LMMAs, OECMs, co-managed fisheries closures, and other area-based conservation measures—but also ensuring that these areas are effectively governed, adequately resourced, socially legitimate, and ecologically connected.

Marine conservation in the WIO is evolving rapidly as global frameworks such as the GBF place new demands. The region requires strong human capacity to deliver on 30×30. The expansion of area-based conservation systems has far outpaced the growth of staffing, skills, technology, and institutional systems needed to manage them. Most MPAs remain small, coastal, and heavily resource-constrained, while offshore and deep-water ecosystems remain significantly under-protected. Community-led conservation systems, which are expanding quickly, often lack technical support, monitoring capacity, and sustained funding.

In addition, new forms of conservation governance—co-management, transboundary seascapes, blue carbon markets, digital ecology, and climate adaptation planning—demand a broader set of competencies than traditional MPA management systems were designed to support. Modern conservation practitioners must blend ecological knowledge, community engagement, compliance expertise,



WIOMPAN regional exchange programme. © SPGA

digital literacy, climate science, policy understanding, and systems thinking.

These shifts are taking place in a region known for its ecological richness, cultural diversity, and political complexity. The WIO spans large ocean areas, major ocean currents, and some of the world's most important coral reef and seagrass systems, shared across multiple jurisdictions and communities. This geography makes regional coordination essential. No single country can achieve 30×30 alone—ecological connectivity, enforcement pressures, shared fisheries, and climate impacts transcend national boundaries.

Strengthening the human capacity to deliver on these ambitions is therefore a **regional imperative**.

The WIO's ability to meet GBF Target 3, support the Blue Economy, and safeguard coastal livelihoods depends on building a **skilled, motivated, well-supported, and future-ready conservation workforce**. That workforce must be equipped not only for today's roles but for emerging job families driven by technology, climate science, and locally led governance.

Collectively, these dynamics create an urgent need for a coordinated, region-wide workforce transformation—one that strengthens national systems, empowers communities, modernises institutions, and connects practitioners across borders.



Athina, a reef rescuer string corals. © Nature Seychelles



WIO MPAN regional exchange programme. © SPGA

2. WHY 30x30 REQUIRES WORKFORCE TRANSFORMATION

The global commitment to conserve at least **30% of marine and coastal ecosystems by 2030**—anchored in the Kunming–Montreal Global Biodiversity Framework (GBF)—is reshaping the expectations placed on marine conservation systems worldwide. In the Western Indian Ocean (WIO), this target represents not only an expansion of conservation coverage but a fundamental shift in what effective conservation must look like. Achieving 30×30 is not simply a spatial challenge; it is a **workforce challenge**.

For decades, efforts in the WIO have focused on establishing MPAs, strengthening community-managed areas, and improving

management effectiveness. However, these systems were designed for a much smaller conservation estate and for a world with far fewer technological, ecological, and economic pressures. Today, the realities of marine conservation are more complex, interconnected, and demanding. The expansion of area-based management alone does not guarantee ecological benefit. Conservation outcomes depend heavily on the **people** responsible for planning, managing, enforcing, and supporting these systems.

Achieving GBF Target 3 requires expanding not just protected area coverage but the human capacity to manage, monitor,



Maintenance work on demarcation buoy. © Chumbe Island Coral Park

enforce, and engage communities effectively. Every new MPA, LMMA, OECM, fisheries closure, or co-managed area requires a robust team capable of delivering a wide range of functions—from ecological assessments and climate adaptation planning to digital monitoring, community engagement, compliance, blue carbon management, and policy reporting. These roles cannot be fulfilled by traditional staffing models alone. They require **modern skill sets**, new job families, and institutions equipped to support them.

Currently, the WIO region faces a mismatch between ambition and capacity. Fewer than **1,000**¹ are responsible for more than **555,000 km²** of MPAs, while hundreds of community-managed areas rely on

volunteers or under-resourced local governance structures. Management-effectiveness assessments across the region consistently identify low staffing levels, limited technical skills, and high turnover as major constraints. The expansion of area-based conservation has outpaced investment in the workforce needed to sustain these systems.

Moreover, the WIO's conservation landscape is becoming more complex. Delivering effective 30×30 commitments requires new types of expertise: skills in marine conservation planning, digital and technology-based skills (eDNA, drones, remote sensing, AI-assisted monitoring), climate adaptation and resilience planning, socio-ecological governance and co-

management competencies, blue carbon science and restoration skills, high-seas and transboundary coordination and Sustainable finance and Blue Economy integration

These emerging demands require a broader and more multidisciplinary workforce than has ever existed in the region.

At the same time, conservation systems must become more accountable, transparent, and evidence-driven. International reporting obligations, national blue economy strategies, climate adaptation plans, and donor requirements all demand stronger data systems, better planning, and consistent performance measurement. Without skilled personnel in place, countries risk creating "paper parks" or expanding conservation boundaries without achieving ecological or social outcomes.

The 30×30 target also elevates the importance of communities, Indigenous knowledge, and locally led conservation. The success of LMMAs, co-managed systems, and OECMs depends on empowering community stewards, creating better livelihood linkages, and ensuring that conservation is meaningful, equitable, and legitimate. This, too, requires a skilled and supported workforce—not just within government agencies, but across villages, fishing communities, local institutions, and civil society organisations.

Finally, the WIO is a region defined by connectivity. Transboundary migratory routes, larval dispersal pathways, ocean currents, and shared fisheries mean that no country can achieve 30×30 in isolation. Workforce systems must therefore be **regional**, harmonised, and interoperable. Shared competencies, mobility pathways, and professional standards—such as those provided by WIO-COMPAS2 and WIOMPAN3—are essential for creating a conservation workforce that can operate across jurisdictions, ecosystems, and knowledge systems.

For these reasons, the 30×30 goal cannot be met through protected-area expansion alone. It requires a **transformative investment in people**. It requires the WIO to strengthen training systems, stabilise conservation careers, modernise institutions, elevate community stewardship, and develop the next generation of conservation professionals.

Achieving 30×30 in the WIO is fundamentally a workforce transformation challenge. Without a strong, future-ready workforce—and the institutions to support them—countries cannot deliver the ecological, social, and governance outcomes envisioned by the GBF. With the right investment, however, the WIO can lead globally in building a modern, digitally enabled, climate-ready, and locally led marine conservation workforce capable of sustaining ocean health for generations to come.

¹ 2024 Data based on number of staff currently in formal MPAs managed by government and co-managed marine areas.



Sea grass mapping. © Eylem Elma, LaSMMI

3. THE WIO MARINE CONSERVATION CONTEXT AND WORKFORCE CHALLENGES

3.1 Marine Conservation Context

Marine conservation in the Western Indian Ocean (WIO) is entering a decisive decade. All governments in the region have formally committed to achieving Target 3 of the Kunming–Montreal Global Biodiversity Framework (GBF)—protecting 30% of marine and coastal ecosystems by 2030. While political momentum is high, progress toward these commitments remains uneven and fragmented. Many countries have rapidly increased the number of Marine Protected Areas (MPAs), community fisheries closures, and locally managed marine areas (LMMAs), yet effective area coverage, ecological representativeness, and long-term management quality have not grown at the same pace¹.

This has created a widening gap between expanding conservation estates and the human capacity required to manage them. Across the region, total designated MPA coverage now stands at approximately 555,000 km², but government agencies collectively employ only around 900 MPA and coastal management staff. Meeting 30×30 ambitions will demand not only more personnel, but also a diverse, highly skilled, and well-supported workforce spanning MPAs, LMMAs, OECMs, transboundary conservation areas, and co-managed systems involving communities and the private sector.

WIOMSA-led assessments undertaken between 2023 and 2025 reveal consistent patterns: persistent gaps in core and emerging skills, shortages of technical and leadership capacity, ageing staff profiles and limited succession planning, inadequate institutional support systems, and rapidly evolving demands for competency in digital ecology, climate adaptation, science–policy interfacing, compliance and enforcement, and community co-governance². These findings confirm that the region's conservation ambitions cannot be realised without a strategic transformation of the workforce ecosystem.

3.2 Workforce Challenges

The workforce constraints facing the Western Indian Ocean are multi-layered, interconnected, and systemic (Figure 2). At the visible surface level, most countries struggle with: chronic understaffing, especially in field operations and enforcement, high turnover, often driven by burnout or uncompetitive career pathways, and skills shortages, particularly in digital, ecological, and socio-economic disciplines.

However, beneath these symptoms lie deeper structural issues that fundamentally shape the region's conservation capacity. These include weak human resource systems, fragmented institutional mandates, inconsistent career progression, limited

² Fielding, P. (2022). *The WIO-COMPAS Programme – Achievements, Challenges, and Future Direction: A Review of Impacts, Institutional Uptake, and Training Needs (2008–2020)*. Report prepared for the Western Indian Ocean Marine Science Association (WIOMSA).

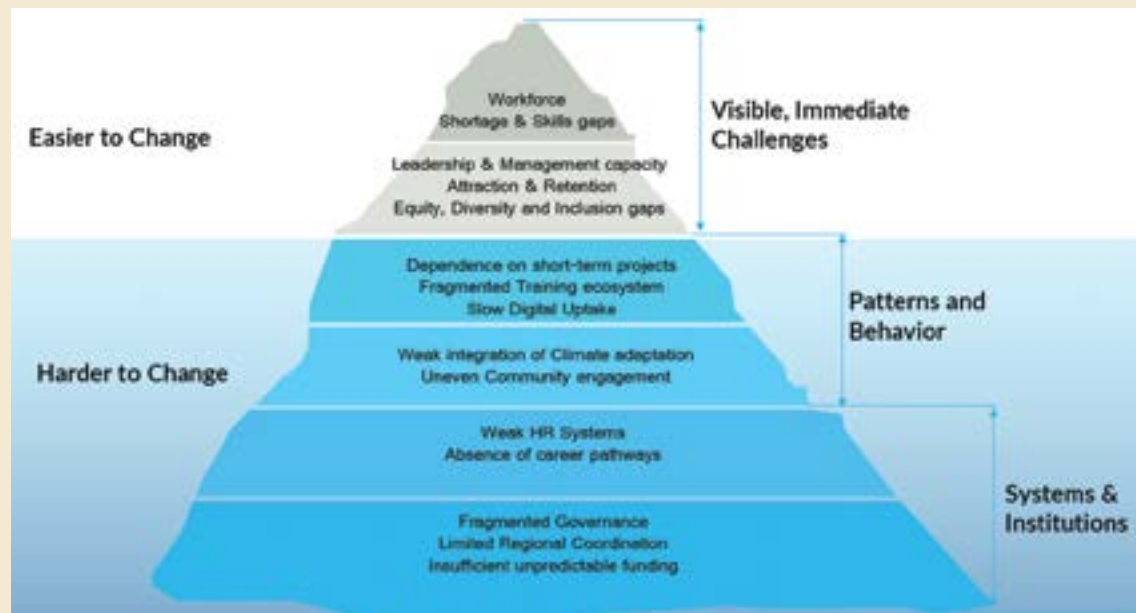


Figure 2: Iceberg Model of Workforce Challenges in the Western Indian Ocean.

professional incentives, and insufficient financing models that restrict long-term sustainability. The training ecosystem—largely focused on short, project-driven workshops—often fails to build competency, professional identity, or accreditation.

Cultural and institutional norms also play a role, with conservation work often perceived as temporary, low-status, or donor-dependent, rather than a professional career requiring mastery, leadership, and long-term commitment.

These internal constraints are compounded by external pressures. Climate change is intensifying ecological risk; Blue Economy

sectors are expanding rapidly; and digital technologies—from drones to eDNA, AI, and remote sensing—are reshaping the skill sets required for modern conservation. At the same time, many agencies face ageing staff cohorts, increasing workloads, and rising burnout.

The convergence of these pressures means that incremental, piecemeal training interventions will not be sufficient. What is required is comprehensive, system-wide workforce transformation that addresses recruitment, retention, training, financing, professionalisation, institutional support, and long-term career development as an integrated whole.



WIO-COMPAS candidates engaging fishermen during beach patrol simulation exercise. © WIOMSA

4. THE TRAIN–RETAIN–REFORM MODEL

The workforce challenges identified above—chronic understaffing, fragmented mandates, weak HR systems, ageing staff, limited digital capability, and rising climate and Blue Economy pressures—demonstrate that the region cannot rely on isolated training workshops or project-based support. Instead, what is required is a **systemic transformation** of how marine conservation talent is developed, supported, and governed across the Western Indian Ocean.

To address these interconnected constraints in a coherent and scalable way, this Framework is built around a **three-pillar model (Figure 3)** that tackles the full lifecycle of workforce development: *how people enter the system, how they are supported*

to stay, and how institutions evolve to enable them to perform effectively.

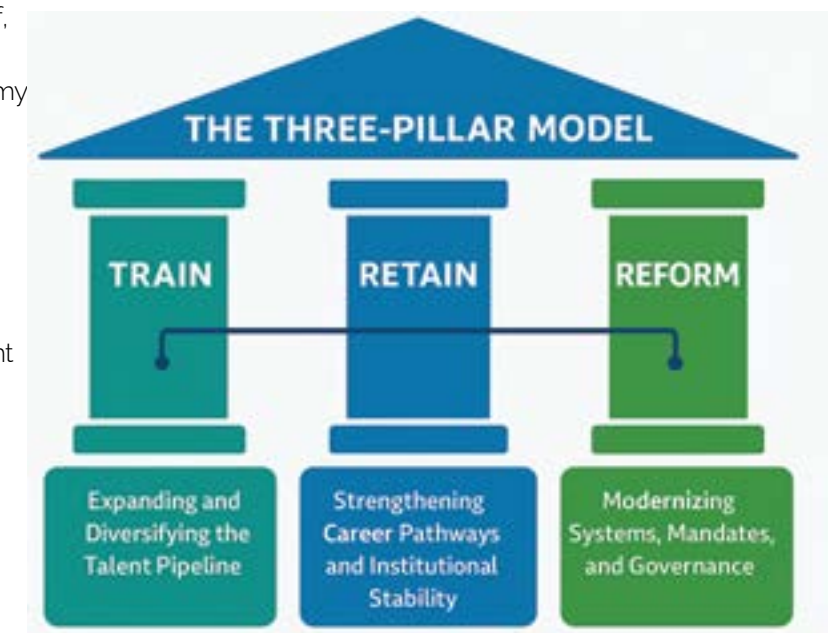


Figure 3. The Train–Retain–Reform (TRR) Model: A three-pillar framework for building a skilled, motivated, and future-ready marine conservation workforce in the Western Indian Ocean.

TRAIN – Expanding and Diversifying the Talent Pipeline

In response to the widening gap between conservation area expansion and human capacity, the **TRAIN** pillar strengthens and grows the region's talent pipeline. It focuses on equipping practitioners with the competencies required for today's and tomorrow's conservation challenges—ecological, technological, social, and managerial.

Key elements include:

- competency-based curricula aligned with WIO needs,
- apprenticeships and field placements across MPAs, LMMAs, and OECMs,
- digital learning hubs for AI, drones, eDNA, and remote sensing,
- inclusive pathways for women, youth, and coastal/Indigenous communities to expand diversity and representation.

RETAIN – Strengthening Career Pathways and Institutional Stability

High turnover, burnout, and the absence of clear progression pathways weaken conservation effectiveness across the WIO. The **RETAIN** pillar directly addresses these issues by creating the conditions for skilled practitioners to remain in the system, grow professionally, and take on leadership roles. This pillar invests in:

- structured career pathways linked to competencies and performance,

- wellbeing, safety, and mental health systems for frontline staff,
- leadership pipelines to prepare the next generation of national and regional leaders,
- stable and diversified financing models that reduce institutional vulnerability to short project cycles.

REFORM – Modernising Systems, Mandates, and Governance

Underlying many workforce challenges are outdated institutional systems—HR structures misaligned with modern conservation roles, fragmented mandates, limited digital integration, and weak data governance. The **REFORM** pillar modernises these foundational systems to create an enabling environment for a professional, resilient, and future-ready workforce. Priority actions include:

- updating HR systems for competency-aligned job roles and performance management,
- modernising mandates and policies to incorporate digital technologies, climate adaptation, and co-management,
- strengthening data governance, monitoring, and learning systems,
- accelerating digital integration across enforcement, ecological monitoring, and community engagement,
- enabling stronger co-management and multi-agency collaboration.

Theory of change

The Theory of Change explains how the WIO region will transform its marine conservation workforce to meet the demands of 30x30 (Figure 4). By investing in sustained financing, strong regional leadership, modern training, digital tools, effective partnerships, and enabling policies, the Framework delivers coordinated activities that strengthen skills, retention, leadership, and institutional

systems. These activities produce trained practitioners, updated HR structures, improved digital readiness, and stronger community engagement. Together, these lead to intermediate improvements in management effectiveness, coordination, and workforce stability, resulting in a professional, future-ready workforce capable of delivering effective, equitable, and climate-resilient marine conservation by 2030.



Promoting Ocean Literacy through experiential learning. © REEFOLUTION

THEORY OF CHANGE

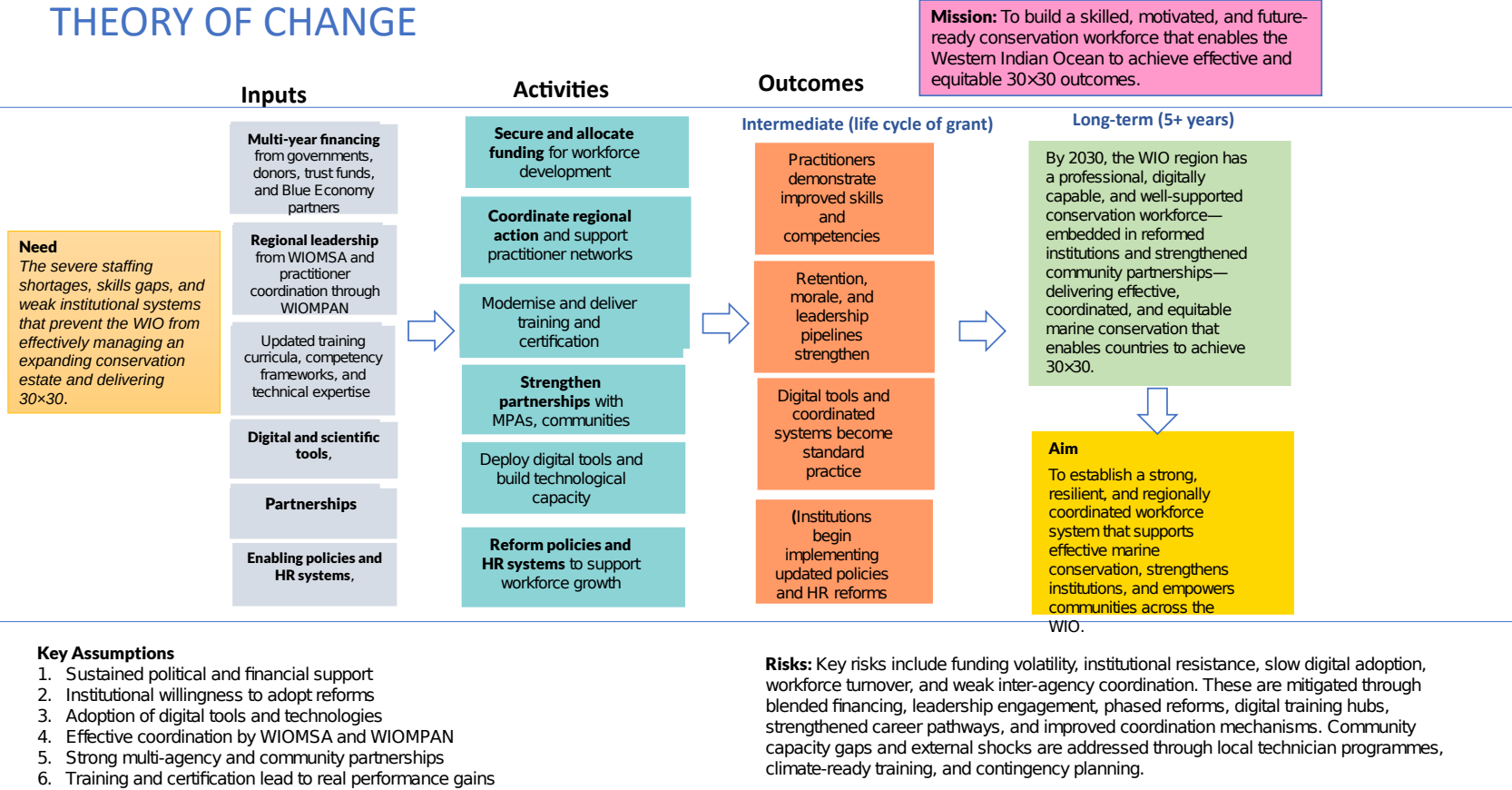


Figure 4. The Theory of Change



Marine Litter Survey at WIOMSA-MeerWissen Co-Design Workshop © WIOMSA

5. IMPLEMENTATION PLAN AND KEY PERFORMANCE INDICATORS (2024–2030)

Implementation of the Workforce Transformation Framework will follow **three overlapping and mutually reinforcing phases**, ensuring both early momentum and long-term institutionalisation (Figure 4). The approach recognises that systemic workforce reform cannot occur in a linear sequence; instead, it requires coordinated, parallel progress across training, retention, and institutional reform, with each phase building on foundations established earlier.

Importantly, **countries will prioritise actions based on their national contexts, institutional readiness, and existing capacity**, meaning that some may begin with training reforms, others

with HR restructuring, and others with digital or leadership components. While sequencing will differ across countries, progress will be guided by **annual workplans** developed jointly with WIOMSA, WIOMPAN, national agencies, and partners. These workplans will translate the multi-year vision into sequenced, budgeted, and monitorable yearly actions.

Alongside national priorities, the Framework includes **regional activities**—including standard-setting, regional curricula, leadership exchanges, digital hubs, and WIOMPAN coordination—to ensure coherence, shared learning, and alignment across the Western Indian Ocean.

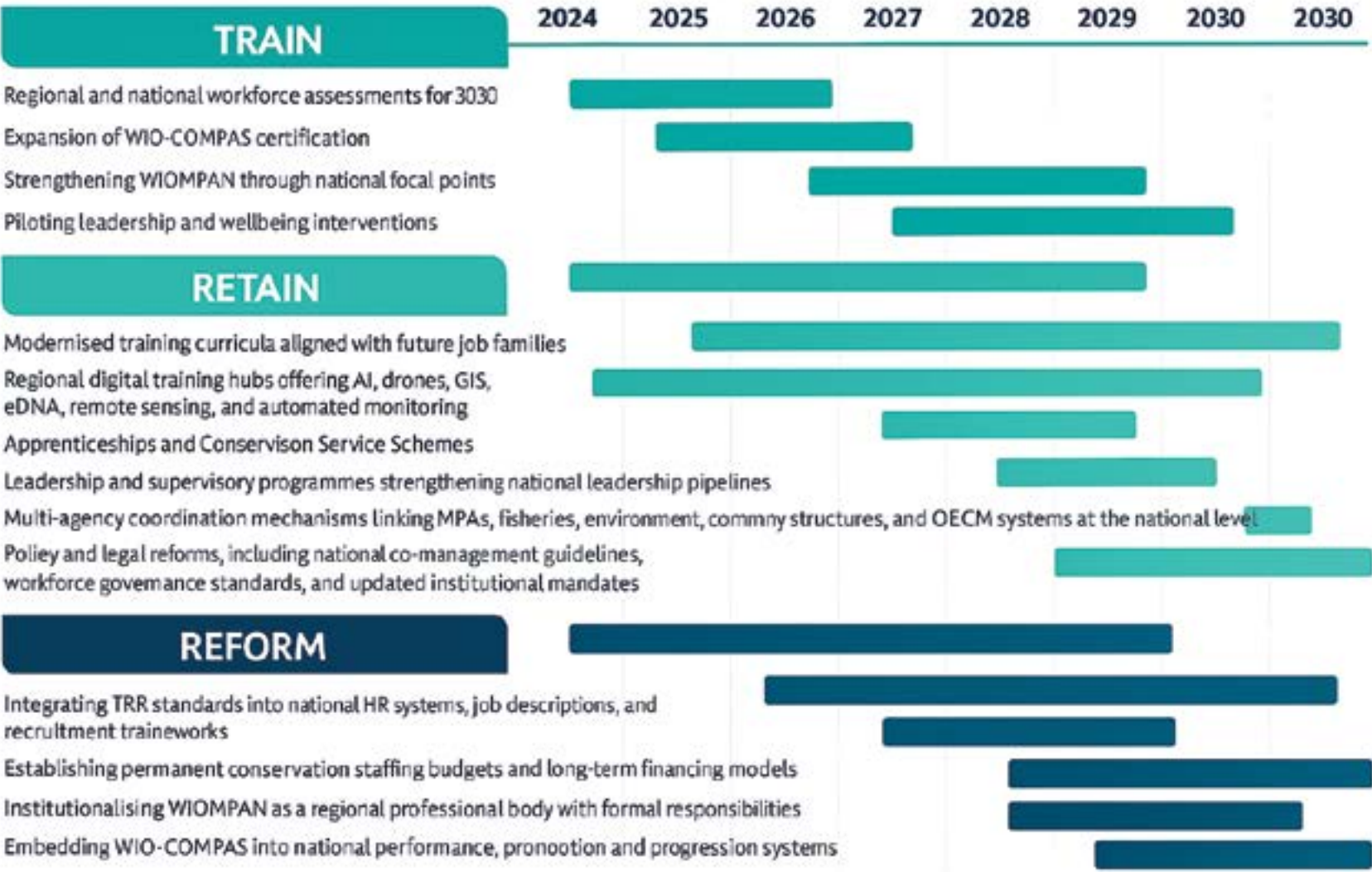


Figure 5. A Phased Approach to Workforce Transformation in the Western Indian Ocean (2024–2030)



eDNA: Genetic tools for Conservation training. © WIOMSA

Phase 1 (2025–2026):
Foundation

This phase focuses on establishing the structural and analytical groundwork for transformation while generating early wins and building regional momentum. Key activities include:

- comprehensive **baseline assessments** of workforce capacity, financing, digital readiness, and institutional systems across the WIO;
- early implementation of high-impact interventions, such as **wellbeing and safety pilots** for frontline staff;
- strategic expansion and revitalisation of **WIO-COMPAS**, incorporating updated competencies and expanded reach across MPAs, LMMAs, and OECMs;
- development of the first generation of **competency-aligned learning pathways** and priority training modules.

Countries may initiate different components depending on readiness—some focusing first on assessments, others on early training or wellbeing pilots—while regional work ensures common standards and learning.

Phase 2 (2025–2028): Scale

Phase 2 focuses on expanding implementation through large-scale rollouts of training, leadership pathways, digital systems, and enabling policy reforms. Core actions include:

- establishment of **regional and national digital training hubs** enabling AI, eDNA, drone, and remote-sensing capability;
- rollout of **modernised, competency-based curricula** aligned with MPA, OECM, and emerging Blue Economy roles;
- implementation of **apprenticeships, field residencies, and mentorship programmes** across WIOMPAN and national authorities;



Tima DAGO a WIO-COMPAS MPA Pro explaining the WIOCOMPAS certification model to KWS staff. © KWS

- policy and regulatory reforms that modernise HR systems, co-management arrangements, mandates, and performance monitoring;
- launch of **leadership development pathways** to strengthen succession planning.
- full institutionalisation of **training systems** within WIOMSA, WIOMPAN, national academies, and partner institutions;
- strengthening of **WIOMPAN** as the core regional platform for professional mobility, peer learning, and practice improvement;
- development of a **2030–2040 regional workforce strategy**, ensuring preparedness for future challenges in climate, digital transformation, and offshore conservation.

During this phase, countries and marine conservation agencies will scale whichever components they prioritise, while **regional initiatives—digital hubs, cross-border training, standardised curricula—ensure interoperability and shared progress.**

Phase 3 (2026–2030): Embed

Phase 3 ensures that new systems, capacities, and partnerships become institutionalised and sustainable across the region. Key priorities include:

- establishment of **long-term financing mechanisms**, including multi-donor baskets, government budget provisions, and cost-recovery models;

While countries embed reforms at their own pace, **regional activities will maintain standards, support mutual learning, and drive forward a shared trajectory toward 2030 and beyond.**

By the end of this phased, country-driven yet regionally coordinated process—and supported by annual workplans—the Western Indian Ocean will have a modern, resilient, and future-ready workforce system capable of delivering effective ocean governance long after 2030.

KEY PERFORMANCE INDICATORS (KPIs)

The KPIs provide clear, measurable benchmarks for tracking progress across the three implementation phases of the Workforce Transformation Framework (Table 1). They translate the multi-year vision into specific outputs and outcomes that can be monitored annually by WIOMSA, WIOMPAN, national authorities, and partners. Together, these indicators ensure accountability, guide adaptive management, and demonstrate the impact of investments in workforce development across the Western Indian Ocean.

Table 1: Key Performance Indicators (KPIs) by Phase (2025–2030)

Phase	Key Performance Indicators (KPIs)
Phase 1 Foundation (2025–2026)	• 9 national workforce baselines completed and published. • 400+ practitioners assessed or certified through the updated WIO-COMPAS. • At least 5 wellbeing pilots implemented; staff satisfaction and safety metrics established. • 10–12 priority training modules developed and delivered. • All countries have annual workforce workplans operational and aligned with regional guidance.
Phase 2 Scale (2025–2028)	• 100–300 practitioners trained annually through digital hubs and field-based programmes. • At least 6 countries adopt competency-based curricula nationally. • 15+ apprenticeship and residency sites operating across MPAs, LMMAs, and OECMs. • 4–8 national HR policy reforms formally initiated or approved. • 300 mid-career leaders enrolled in regional leadership pathways. • Regional digital skills index established and improved by 30%.
Phase 3 Embed (2026–2030)	• At least 50% of funding for workforce development secured from stable domestic or multi-donor mechanisms. • All WIO countries adopt annual workforce reporting and MEL dashboards. • 1500+ skilled practitioners retained across MPAs, LMMAs, and OECMs (≥40% increase from 2024 baseline). • Regional training systems embedded in national academies and WIOMPAN networks with sustainable staffing. • WIOMPAN membership and activity increased by 50%, with annual exchanges, clinics, and leadership summits.



WIOMSA, RECOs and Varuna training on the integrated management effectiveness tool (using the IMET) for island states. © WIOMSA

6. GOVERNANCE AND PARTNERSHIP MODEL

Different partners will work together to create a coordinated, multi-layered ecosystem capable of delivering a modern, resilient, and locally grounded marine conservation workforce.

WIOMSA serves as the **regional technical anchor**, providing scientific leadership, competency standards, accreditation systems, and the coordination necessary to maintain coherence across countries. WIOMPAN functions as the **practitioner-facing operational engine**, connecting MPA managers, community practitioners, and frontline staff through exchanges, mentorship, and continuous learning platforms. The **Nairobi Convention** ensures **policy alignment and regional governance coherence**, enabling the Framework to interface with national strategies, regional

protocols, and global commitments such as the GBF Target 3.

At the national level, **government agencies and MPA authorities** lead institutional integration by embedding competency-based training, HR reforms, and digital systems into their structures. **Communities, LMMAs, and co-management bodies** drive locally led stewardship, applying skills on the ground and ensuring conservation practice remains socially legitimate and inclusive. Research institutions, universities, and technical partners contribute scientific evidence, innovation, and monitoring capacity. **Donors and funding partners** provide the financial backbone needed to scale and sustain workforce development across the Western Indian Ocean.

Text Box 1: WIOMSA and WIOMPAN

WIOMSA and WIOMPAN provide the strongest foundation for transforming the WIO conservation workforce. **WIOMSA**, with over **30 years of regional leadership**, has shaped marine science, policy, and capacity development across the region. Through programmes such as **WIO-COMPAS**—Africa's only professional certification system for MPA practitioners, with **150+ certified** and **600+ trained**—WIOMSA has established recognised standards for professional excellence and career advancement.

WIOMPAN complements this strength by connecting practitioners across **10 countries**, providing a practitioner-led platform for peer learning, mentoring, south-south exchanges, and frontline capacity building. Its national chapters ensure that reforms remain grounded in real operational needs and community-based realities.

Together, WIOMSA and WIOMPAN offer **technical credibility, institutional stability, and regional governance influence**. Their combined networks span governments, communities, research institutions, and NGOs, providing the ideal architecture for scaling the Train-Retain-Reform model.



7. FINANCING STRATEGY

Delivering a future-ready conservation workforce for the Western Indian Ocean requires sustained, predictable, and well-structured financing. The scale and ambition of the Train-Retain-Reform (TRR) model reflect the region's commitment to meeting GBF Target 3 (30×30) through effective, equitable, and locally led marine conservation. To achieve this transformation, the Framework requires an estimated **USD 45–60 million** over the **2025–2030** implementation period.

This investment envelope was developed through regional benchmarking of MPA authorities, cost analysis for training and certification systems, and projections of institutional strengthening needs across MPAs, LMMAs, OECMs, and co-managed systems. The financing requirements are distributed across the three TRR pillars as follows:

• TRAIN: 40–45% of total investment

This pillar demands the largest share of resources, as it includes the expansion and modernisation of regional training systems, the establishment of digital training hubs, competency-based curricula, apprenticeships, Conservation Service Schemes, and targeted inclusion measures for women, youth, and coastal and Indigenous groups. Investments under TRAIN directly increase the number, diversity, and readiness of practitioners entering the conservation workforce.

• RETAIN: 20–25% of total investment

The RETAIN pillar strengthens career pathways, wellbeing systems, leadership development, management pipelines, and long-term employment stability. It includes

the scaling of WIO-COMPAS certification, wellbeing programmes, national leadership development tracks, and structured support for community and LMMA stewardship. These investments stabilise the workforce and ensure that trained practitioners remain motivated and engaged.

• REFORM: 30–40% of total investment

Institutional reform requires significant, long-term investment in updating HR systems, job descriptions, mandates, policies, governance structures, digital integration, multi-agency coordination mechanisms, and data systems. Financing under this pillar ensures that institutions are able to absorb, retain, and empower a modern workforce, creating an enabling environment that supports high performance and long-term sustainability.

A Blended, Sustainable Financing Model

Achieving and sustaining workforce transformation requires a financing architecture that goes beyond project-based funding cycles. The Framework adopts a **blended financing model**, ensuring diversified support, reduced risk, and long-term stability. Key components include:

• *National Government Budgets*

Governments play a central role in funding core conservation functions. Over time, countries are expected to progressively cover **40–50%** of long-term workforce investments through national staffing budgets, HR systems, recruitment frameworks, and institutional mandates. This ensures sustainability beyond donor cycles.



WIOMSA and Blue Nature Alliance hosted the WIO Marine Protected Area Finance Workshop in Watamu, Kenya. © BNA

- **Philanthropic and Bilateral Donor Support**

Philanthropic foundations, bilateral agencies, and international NGOs provide catalytic financing for innovation, digital transformation, leadership development, WIO-COMPAS expansion, and community stewardship pathways. These investments fast-track scaling and help countries build new capacities aligned with global best practice.

- **Blue Economy Partnerships**

Responsible industries—tourism, shipping, fisheries, blue carbon, and marine technology firms—represent a growing source of co-financing in the WIO region. These actors benefit directly from healthy ecosystems and can invest in skills development, digital monitoring infrastructure, and community stewardship programmes.

- **Conservation Trust Funds & Endowments**

Regional and national trust funds (e.g., WIOCTF, national environmental trust funds) provide long-term, stable financing through endowments, blended instruments, and strategic grants. These funds are essential to anchor leadership pipelines, wellbeing systems, staffing continuity, and institutional reforms.

- **South-South and Regional Co-financing**

Partnerships across WIO countries and with African regional institutions enable cost-sharing for digital hubs, certification systems, and shared curricula. These arrangements reduce duplication and maximise efficiency.

Ensuring Long-Term Financial Sustainability

The financing strategy is designed to ensure that the TRR system becomes embedded within national and regional institutions by 2030. Key measures include:

- Establishing **dedicated, permanent staffing budgets** for conservation authorities.
- Embedding WIO-COMPAS certification within national HR frameworks.
- Building the capacity of WIOMPAN to serve as the regional professional body.
- Strengthening digital and data systems that reduce long-term operational costs.
- Developing country-level workforce strategies aligned with blue economy plans and climate financing.
- Leveraging regional investment platforms to attract multi-year commitments.

A Strategic Investment With High Returns

Workforce investment under the TRR model delivers high ecological, social, and economic returns by:

- Increasing management effectiveness of MPAs, LMMAs, and OECMs
- Enhancing climate resilience
- Strengthening compliance and reducing IUU fishing
- Empowering communities and Indigenous custodians
- Improving regional scientific and digital capacity
- Supporting sustainable blue economy growth

These returns compound over time, making the TRR Framework one of the most impactful investments for achieving GBF Target 3 and securing long-term ocean health in the WIO.

8. RISK MANAGEMENT

The successful implementation of the WIO Marine Conservation Workforce Transition Framework depends on anticipating and proactively addressing a range of risks that could hinder progress. These risks arise from the complex institutional, financial, technological, and socio-political environments in which marine conservation takes place across the Western Indian Ocean (WIO). A robust risk management approach strengthens resilience, supports adaptive implementation, and increases donor and government confidence in the Framework.

The major risks identified include funding volatility, institutional resistance, slow technology adoption, workforce turnover, and weak inter-agency coordination. Each risk has been assessed based on its potential likelihood and impact, and mitigation strategies have been designed to ensure that the Framework remains achievable and sustainable (Table 2).

Table 2. Risk Matrix Table

Risk Category	Description	Likelihood	Impact	Overall Risk Level	Mitigation Measures
Funding Volatility	Dependence on short-term, project-based funding; inconsistent government budgeting	High	High	Severe	Blended financing model; multi-year commitments; trust funds; permanent staffing budgets
Institutional Resistance	Slow adoption of TRR reforms, new HR systems, digital tools, and competency frameworks	Medium	High	High	Leadership engagement; phased adoption; change-management training; early-win pilots
Slow Technology Adoption	Limited digital skills, inadequate infrastructure, slow uptake of AI, drones, GIS, eDNA, automated systems	Medium	Medium-High	High	Regional digital hubs; capacity building; interoperability standards; technical support
Workforce Turnover	Burnout, limited career pathways, poor conditions, lack of recognition, retirement of experienced staff	Medium	Medium	Medium	WIO-COMPAS pathways; wellbeing & safety systems; leadership development; mentorship programmes
Weak Inter-Agency Coordination	Fragmented mandates; low collaboration between MPAs, fisheries, environment, security, communities	Medium	High	High	Multi-agency coordination mechanisms; harmonised standards; WIOMPAN facilitation; improved data-sharing
Community-Level Capacity Gaps	Limited technical skills and resources within LMMAs, OECMs, co-managed systems	Medium	Medium	Moderate	Community technician training; small grants; stewardship incentives; local governance support



Marine Rangers on Coastal Data Collection patrol. © Peter Chadwick

9. MONITORING, LEARNING, AND ADAPTATION

A strong monitoring, learning, and adaptation (MLA) system is essential to ensure that the WIO Marine Conservation Workforce Transition Framework remains responsive, evidence-driven, and aligned with the evolving demands of GBF Target 3 and national conservation priorities. Given the complexity of workforce transformation and the diversity of institutions involved, the Framework places significant emphasis on harmonised data systems, real-time learning, and structured feedback loops. These mechanisms help countries and partners assess progress, identify gaps early, and continuously improve implementation across the region.

A regional workforce dashboard, standard KPIs, midterm review in 2027, and WIOMPAN-led learning loops ensure adaptive management and continuous improvement.

9.1 Regional Workforce Dashboard

A regional workforce dashboard will serve as the central accountability and monitoring tool for the Framework. Managed by WIOMSA in collaboration with WIOMPAN and national focal points, the dashboard will:

- Consolidate country-level data on staffing, certification, digital readiness, leadership development, and workforce diversity
- Track training delivery, including WIO-COMPAS participation and emerging job-family competencies
- Visualise progress across the three TRR pillars (TRAIN, RETAIN, REFORM)
- Provide real-time insights for governments, donors, and regional partners
- Highlight areas requiring support, acceleration, or reform

The dashboard will be updated quarterly, enabling a more agile approach to workforce planning and investment decisions.

9.2 Standardised Workforce KPIs

A set of **standard Key Performance Indicators (KPIs)** will guide consistent monitoring across countries (Table 3). These KPIs will be aligned with global reporting requirements (GBF Target 3, SDG 14, Ocean Decade) and national blue economy strategies. Core indicators will include:

Table 3. Standardised KPIs for the WIO Conservation Workforce Transition Framework

Pillar / KPI Category	Key Performance Indicators (KPIs)
TRAIN	• Number of practitioners trained per year • Number certified under WIO-COMPAS (Levels 1–3) • Percentage of staff trained in digital ecology, AI, GIS, drones, and eDNA • Number of youth apprenticeships, internships, and Conservation Service placements • Participation rates of women, youth, coastal and Indigenous groups
RETAIN	• Staff turnover and retention rates • Number of practitioners progressing through career pathways • Number of leadership and supervisory competencies developed • Wellbeing and safety measures implemented • Continuity of staffing in MPAs, LMMAs, and OECMs
REFORM	• Number of institutions adopting updated HR systems, job descriptions, and progression frameworks • Number of agencies integrating digital monitoring, data governance standards, and co-management guidelines • Degree of multi-agency coordination • Extent of WIO-COMPAS integration into national HR and promotion systems
Outcome-Level KPIs (Across TRR)	• Improvements in management effectiveness • Increased community stewardship and technician deployment • Strengthened national leadership capacity • Enhanced data availability and reporting consistency



WIOMPAN members at a regional WIOMPAN meeting in Dar es Salaam. © WIOMSA

9.3 Learning and Adaptation Through WIOMPAN

WIOMPAN plays a central role in operationalising learning across practitioners, institutions, and countries. Through its regional and national chapters, WIOMPAN will lead:

- **Communities of practice** on digital ecology, climate adaptation, enforcement, TEK integration, governance, and co-management
- **Peer-to-peer exchanges** and professional secondments

- **Technical clinics and rapid learning sessions** linked to emerging challenges and innovations
- **Annual learning reports** summarising progress, challenges, and best practices
- **Mentorship systems** supporting early-career practitioners, community stewards, and LMMA leaders

These learning loops ensure that workforce strengthening remains rooted in practitioner realities and that institutional reforms are informed by on-the-ground experience.

9.4 Midterm Review (2027)

A **comprehensive midterm review in 2027** will assess progress across all pillars and implementation phases. The MTR will:

- Evaluate performance against TRR KPIs and 2030 targets
- Assess financing performance and long-term sustainability
- Review institutional reforms and governance effectiveness
- Identify emerging skill needs in digital ecology, climate adaptation, co-management, and transboundary coordination
- Recommend course corrections and prioritised actions for the 2028–2030 period

This review will be carried out in collaboration with national governments, WIOMSA, WIOMPAN, and regional partners, ensuring shared ownership of findings and actionable recommendations.

9.5 Building a Culture of Continuous Improvement

Monitoring and learning are not stand-alone activities—they are central to building a modern, resilient, and adaptive workforce. The Framework promotes a regional culture of continuous improvement through:

- Evidence-based decision-making
- Regular reflection and feedback cycles
- Cross-border collaboration and learning
- Transparent reporting
- Integration of community and Indigenous knowledge
- Open, practitioner-led dialogue on evolving needs

This approach ensures that the WIO region remains agile in responding to ecological, technological, and institutional shifts while staying on track to meet the 30×30 ambition.

Hawksbill turtle monitoring. © Victoria Beasley, Nature Seychelles



