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# For a Profitable yet Resilient Blue Economy

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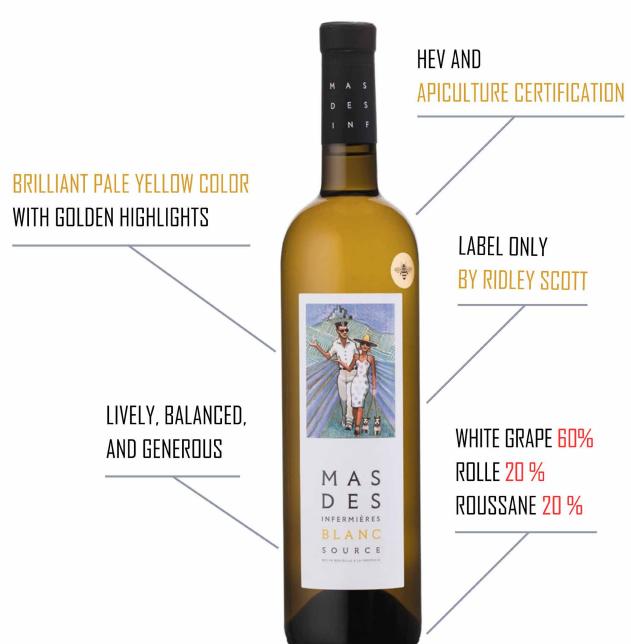
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# For a Profitable yet **Resilient Blue Economy**

Did you know? More than 3 billion people worldwide utilize the oceans for their livelihood, and 80 percent of world trade is achieved using the seas, according to the United Nations. The oceans, seas and coastal areas contribute to food security and poverty eradication.

Concerns about this potential portfolio deserve to be raised, as Madagascar is an island.

As a reminder, the origin of the 'blue economy' concept stretches back to Rio de Janeiro in June 2012 at the Rio+20 United Nations Conference on Sustainable Development, with Madagascar's participation. conference addressed two key themes: the further development and refinement of the Institutional Framework for Sustainable Development and the advancement of the "green economy". Hence this gave rise to the idea of the 'blue economy'. It has been agreed that there is a need for more integrated support at the national level, especially in highly strategic countries such as Madagascar. Definitely, the blue economy sector gradually started to grab more attention than ever.

As far as Madagascar is concerned, the figures speak for themselves. The country is endowed with the longest coastline in Africa (5,600 km), a wide territorial sea (111,000 km2), and the fourth-largest Exclusive Economic Zone in the world (over 1.22 million km2). As stated in a recent report, fisheries in Madagascar account for almost 7 percent of GDP and support the livelihoods of 1.5 million people out of a population of 25 million.

It all sounds very interesting, but where does Madagascar stand in the way towards a resilient and effective Blue Economy?

Are institutions effective enough (SDG16) in setting up institutional frameworks to combat the unregulated production and consumption (SDG12) of industrial, but especially artisanal fishermen, most of whom have no decent work (SDG8), particularly during restricted fishing periods which, in the long run, will guarantee a future where there will still be life below water (SDG14)?

While some international organizations already give support to sustain fishermen's communities (SDG11), have we mobilized sufficient partnerships (SDG17) to establish industries and incorporate cutting-edge innovation and infrastructure (SDG9) into our practices?

Without further explanation, the juxtaposition of 'the World's fourth largest Exclusive Economic Zone' and '6 percent of local livelihoods supported' in a couple of sentences just speaks volume.

Clearly, while the concept of the 'blue economy' appears astonishing on paper, the ground reality often reveals a disparity between potential gains and their equitable management. Visit a market in a small coastal town during the restricted periods, and you will still see seafood for sale on the stalls. And if you ask the fishermen or the salesperson: why? They will complain that they would barely survive if restricted. Yet resources are supposed to abound during unrestricted periods.



In a way, this means that investment in the blue economy still lacks to support the population.

One aspect that also requires serious consideration is the issue of the countries' poorly-serviced ports compared with other hubs in the region, despite its geographical insularity. Most import shipments coming to Madagascar are transshipped via the ports of our neighboring islands. This leads to relatively long transit times and more expensive services. In case of minor volumes, local ports are also skipped from the schedule. Nevertheless, over the last decades. 640 million USD have been invested in extending the Port of Toamasina, which is already a good step forward.

Industry and infrastructure are central to any development. With regards to marine-based projects, Madagascar's geographical location is strategic thanks to its wealth of mining products which are in progress or at least standing by, due to social dilemmas.

Anyway, ongoing policy envisions a sustainable growth approach, with a specific ministerial department at the helm. Certainly, they work hand in hand with the other departments to respond this wake-up call. This might seem obvious, but, to date, there's much to do in the way of tangible policy to ensure the growth needed in the blue economy. With this policy direction, let's hope things bode well.



By **Maherintsoa Andrianiaina** Editor-in-chief



# **Madagascar Envisions a** Sustainable Growth on the Blue Economy

#### The Malagasy Government's **Blue Economy Approach**

The Malagasy Government's stance on the Blue Economy represents more than just policy; it is a vision of sustainable growth. Our approach centers on comprehensive stewardship of marine, coastal, and freshwater resources. This integrative framework aims not only to streamline operations among relevant sectors, but also to create a synergy that multiplies positive impacts. While maximizing economic gains is undoubtedly essential, the broader picture always conservation includes the protection of marine ecosystems. Moreover, there is a recognition that challenges like pollution-especially from plastics-and climate change impact transcend borders and sectors. This acknowledgment ensures that the solutions for these challenges are embedded in the larger fabric of the Sustainable Development Goals that the Malagasy Government aligns with.

#### The Role of MPEB and **Collaborative Governance**

The Ministry of Fisheries and the Blue Economy (MPEB) acts as a



Paubert Tsimanaoraty Mahatante, Minister of Fisheries and Blue Economy

cornerstone institution in the endeavor to navigate the intricate challenges of the Blue Economy. Recognizing that no single entity can holistically address these challenges, MPEB emphasizes the need for a multi-dimensional collaborative approach. The creation the National Committee for the Multi-sectoral Coordination of the Blue Economy and Ocean Governance exemplifies this strategy. This committee is not just a meeting of minds, but a fusion of visions from various governmental sectors, private

industries, and civil society groups. Such diversity ensures that marine resource management benefits from a wealth of expertise and perspectives.

#### **Enhancing Value Chains for** Sustainable Growth

For the Blue Economy in Madagascar, sector-specific enhancing value chains is paramount. The emphasis is not merely on expanding these sectors but ensuring that they grow sustainably. This holistic strategy encompasses diverse domains: from the vast potential of maritime logistics and fisheries to the promising horizons of green energy, coastal tourism, and marine product innovations. Ensuring that stakeholders have the right tools, knowledge, and opportunities is essential. This involves not just facilitating market access, but also cultivating an environment where education, financial incentives, and skill development are readily available and accessible.

#### **Employment and the Future** of Aquaculture

In the realm of marine-related employment, the potential aquaculture stands out prominently.

The MPEB is cognizant of this potential and is investing in both the present and future of fisheries. Their numerous training initiatives across Madagascar underscore the significance they place on fish cultivation. But it is not just about training; it is about infrastructure. Establishing Fish Farming Emergence Zones offers a dual advantage: it caters to the immediate demand and sets the stage for sustainable growth. With global sentiment veering towards aquaculture as the next frontier in fishing, Madagascar seems poised to ride this wave.

## Port Infrastructure: The Lifeline of Trade

Madagascar is home to several key ports, with the Port of Toamasina the largest and significant. Handling a vast majority of the country's containerized cargo, it serves as a hub for both regional and international trade. However, there are also other strategically located ports, such as those in Mahajanga, Antsiranana, and Toliara, that cater to specific trade routes and commodities. These infrastructures not only facilitate trade, but also have the potential to be leveraged as transshipment points for the broader Indian Ocean region.

#### Sustainable Port Operations

In alignment with the global shift towards sustainability, Madagascar's port authorities are increasingly adopting environmentally-friendly practices. Measures include enhancing waste management systems, reducing carbon emissions through green technologies, and ensuring that port

operations do not disrupt the delicate marine ecosystems. These initiatives are not only environmentally sound, but also position Madagascar's ports as leaders in sustainable maritime operations in the region.

# The Centrality of Education and Capacity Building

Sustainable growth in the Blue Economy hinges significantly on education. It is not enough for policymakers and industry leaders to understand the nuances of marine resources; the larger populaceespecially the younger generation must also be brought into the fold. Beyond general awareness, there is a dire need to build capacities. This involves specialized training for various stakeholders, from fishermen to marine conservationists. What is crucial is that these training programs are not generic; they are tailored to address the unique needs, challenges. and opportunities of each region and sector.

## Investing in Blue Infrastructure

Infrastructure acts as the backbone for any economy, more so for the Blue Economy. Ports, seafood processing hubs, monitoring systems, and early warning systems are just a few examples of the infrastructural needs. Investing in these areas ensures that the Blue Economy does not just grow but does so efficiently. Enhancing logistical capabilities ensures that used resources are optimally, economic operations are streamlined, and marine-based trade gets the infrastructural boost it needs.

# The Global Dimension: Diplomacy and Alliances

While national efforts form the core of Madagascar's Blue Economy strategy, there is a clear acknowledgment of the global dimension. Strengthening diplomatic ties goes hand in hand with optimizing trade opportunities. Building bridges, especially with neighboring islands and the broader African continent, holds the key growth. Additionally, shared collaborations with global partners can open doors to mutual learning, best practice sharing, and muchneeded resource mobilization.

#### A Forward-Looking Perspective

Madagascar's journey in shaping its Blue Economy is commendable and points towards a future filled with promise. As the nation stands on the cusp of unveiling a comprehensive blueprint for the Blue Economy, there is palpable anticipation. This strategy combined with upcoming investment schemes, ocean governance policies, and the introduction of marine spatial planning signifies progress and a roadmap for sustainable, integrative growth.



By Paubert Tsimanaoraty Mahatante,

Minister of Fisheries and Blue Economy

# **Newly-elected Board** Members of AmCham



#### Russell Joseph Kelly -**President**

Prior to heading up Natural Resources Consulting, Russell

Joseph Kelly served as the Chief Executive Officer of Madagascar Oil S.A. Previously, he held positions as an Independent Director of Resources Prima Group, listed on the Singapore stock exchange. He has been involved in the restructuring of several petrochemical companies since his arrival in Indonesia in 1997, focusing primarily on legal and financial issues with both domestic and international creditors. From 2002 to 2007, he was the technical operations director of PT Trans-Pacific Petrochemical Indotama in Indonesia. From 2007 to 2013, Russell Joseph Kelly was the technical operations director of PT Tuban Petrochemical Industries, a petrochemical holding company based in Indonesia. He was the managing director of Polytama International Finance B.V. from 2004 until 2015 and was a member of the board of commissioners of PT Tuban LPG Indonesia from 2008 until 2016 and was the President Director of PT Sulfindo Adiusaha from March 2015 until March 2016. From his graduation in 1980, until his relocation to Indonesia in 1997, Mr. Kelly held several positions within UOP LLC. Russell Joseph Kelly obtained his Bachelor of Science (Honours) degree in Chemical Engineering from the University of Newcastle-Upon-Tyne, United Kingdom in 1980.



#### Tom Cushman -Vice President

Tom Cushman is a GIA Graduate Gemologist and is the International Colored

Stone Association Ambassador to Madagascar where he has been involved in gemstone trading for over 20 years. Tom founded and managed the Institut de Gemmologie de Madagascar under a grant from the World Bank. He has been active in small-scale mining policy and development in Madagascar for many years as a consultant to the Ministry of Mines and Energy and is a founding member of the Malagasy National Mines Committee. Tom now serves as a board member of the Madagascar Chamber of Mines and AmCham Madagascar. Tom opened Richfield Investor Services Antananarivo, Madagascar 2007 to assist incoming international the investors navigate Malagasy business environment. Richfield's clients are primarily in natural resource industries. As the Country Manager of the NGO Artminers Madagascar. Tom is instrumental in building a strong domestic gem industry and is a leader in the development of Fair Trade Jewelry. In 2008 Tom was honored for his years of service to Madagascar by being awarded Chevalier de l Ordre National.



#### Winifred Fitzgerald -Treasurer

Winifred Fitzgerald is the Senior Advisor for External Relations

in the Sustainability Division of Ambatovy,

a nickel and cobalt mining enterprise. Her background includes work with and for non-governmental organizations, foundations, private companies in the extractive industry, a university research center, and governmental and multilateral development agencies.



#### Larissa Ratsiraka Tronc -**Secretary**

Larissa Ratsiraka Tronc is international lawyer

who araduated from the University of Social Sciences' Faculty of Law in Toulouse, France. She currently works for Redland (holding company Thomson Broadcast, GatesAir and Sipromad Group) as Director of Communications and Public Relations, after diplomatic missions to Consulates, Embassies, and the United Nations, as well as running other firms in France and Madagascar. A Rotarian, Larissa was elected President of the Rotary Club Antananarivo Ivandry for 2020-2021 and received the Paul Harris Fellow (PHF) award in recognition of her generosity and her understanding of the plight of vulnerable Malagasy people. She currently serves as Assistant Governor of Rotary District 9220.



#### Marcellin Andrianarivelo-Razafy - Board of Directors

Marcellin Andrianarivelo-

Razafy works as the Business Development Manager of the Fraise Group. He is a Harvard Business School Alumnus and the Harvard Alumni Association contact in Madagascar. Marcellin is currently Co-Liaison Director of the Stanford Seed Program in the Indian Ocean, which promotes the end of poverty through private sector initiatives. On the other hand, Marcellin studied at the ISEG (European Institute of Management) in Paris, France, and then used to work for consulting companies there, before joining the Fraise Group in 2006. Apart from his daily functions, he sits on the boards of Shell Vivo. SMH Société Malgache d'Hôtellerie (Carlton hotel) and FIARO Trust Fund. And last but not least, he is a Board Member of the CSBF, Banky Foiben'i Madagasikara since 2020. Marcellin is back, having been a founding member of AmCham, of which he has been a Vice-President in 2012-2013.



#### Andriamisa Ravelomanana - Board of Directors

Andriamisa Ravelomanana

known as "Ami", is the Country Senior Partner for PwC in Madagascar. He is also the Tax&Legal Los Leader of PwC Madagascar. Ami is a member of the Madagascar Council of Chartered Accountant, of which he serves as the President. He has developped a strong experience and practice in business law. He assists various foreign investors from the design, due diligence, implementation and exploitation of their business in Madagascar. Throughout the running of the business, Ami and his team assist a wide range of clients in various sectors and provide financial, tax and legal services. On the social side. Ami is one of the founders of the Association Ed+ aiming to promote education and development vulnerable populations by combating malnutrition through agricultural and environmental education.



#### John James – Board of Directors

John holds degrees in chemistry and business from the

University of Illinois and Wake Forest University in the USA. Prior to founding Mioty Voajanahary in 2013, he had over 20 years experience in pharmaceutical R&D managing teams specializing in pharmacokinetics, bioanalysis and metabolism. His experience includes audits and inspections for Good Laboratory Practices (GLPs), Good Manufacturing Practices (GMPs) as well as Hazard Analysis and Critical Control Points (HACCP) evaluations.

He first learned of Aloe macroclada in 2008 as the scientific advisor on a film crew documenting traditional healing practices in Madagascar (and other uniquely biodiverse locations around the world). He arranged human clinical trials to verify suspected increases in adult stem cells following ingestion of Aloe macroclada gel. Following positive clinical trial results showing significant increases in circulating stem cells, he left the pharmaceutical industry and started work toward producing Alomac as a nutritional supplement. He established Mioty Voajanahary SARL in 2013.

John has several publications including "Aloe macroclada from Madagascar Triggers Transient Bone Marrow Stem Cell Mobilization". He has a house and two daughters in North Carolina, USA and is a resident of Madagascar living near the Ivato airport, close to his Alomac production facility.



#### Jean Claude Mazingue – Board of Directors

Jean Claude Mazingue: is a

Value Chain Expert with 40 years of experience in the USA and Sub-Saharan Africa, and 18 years of experience in

business development from Africa to the USA, as well as in AGOA training and implementation. Jean Claude holds an MBA issued by EDHEC and completed an Advanced Management Program at INSEAD. He serves as a board member of institutions other than AmCham, namely the African Coalition for Trade (ACT) in Washington, DC, and the American Textile Manufacturing Institute (ATMI). Currently, he is acting as an advisor to the Vice Chair and CEO of the SOCOTA Group. His achievements include: assessing export readiness and assisting 60 companies to export to the U.S. through technical assistance, inward buyers' mission, trade shows and matchmaking; implementing Origin Africa awareness campaign in the Apparel sector; recruiting major buyers as Friends of Africa Advisory Board members; and writing Export National strategies for Burundi, Mauritius, Rwanda, and Uganda.



#### Fred Rittlemeyer – Board of Directors

Fred is the founder and director of The

Madagascar Water Project which is a tax-exempt public charity in the USA. He first came to Madagascar in 2006 as Operations Manager for ExxonMobil Madagascar. He was involved in several studies that took him to many places along the northwest coast. After retiring from Exxon in 2009 on completion of 30 years' service, he returned to Madagascar the following year as a consultant for Madagascar Oil, where he held the position of Operations Manager. Fred retired from the oil industry in 2015 to pursue his interests in humanitarian endeavors. He subsequently formed The Madagascar Water Project in 2017. Fred attended Spring Hill College (1971 - 1975), the University of New Orleans (1983 - 1986) and holds a degree in Geology from the University of South Alabama (1976 - 1978).

# The Blue Economy sector in Madagascar at a glance

#### What is the blue economy?

The blue economy covers all economic activities related to bodies of water and coastlines, including oceans and seas, coasts, lakes, rivers, canals, and groundwater. It promotes sustainable development carrying sectors such as fishing, aquaculture, tourism, maritime and river transport, the port industry and shipbuilding, energy, bioprospecting and all subsea mining sectors. For all these fields, Madagascar is a country of choice, as it is an expansive island teeming with diverse ecosystems, and is already representative of dedicated achievements and projects that in some cases make it a world-class example. The particularity of Madagascar that we need to protect as part of the blue economy is its biodiversity, with living species constituting a nature sanctuary and an exceptional biological diversity of 12,000 plant and 1,000 vertebrate species (mammals, reptiles, amphibians, birds) with an endemicity rate of over 80 percent, as well as iconic species such as whales and other marine mammals.

For Madagascar, the concept of the blue economy is already an integral part of its daily development and culture. Even if the majority of the population is naturally involved in agriculture, the country's economic renewal lies also in the adoption of blue solutions suggested by its port, marine and aguatic ecosystems and their associated resources. These solutions are detailed in the book: « Africa's Blue Economy: A policy handbook » published by the United Nations Economic Commission for Africa.



Philippe Murcia

"Madagascar is a country of choice, as it is an expansive island teeming with diverse ecosystems"

#### Highlights of the Blue **Economy in Madagascar**

The island boasts roughly 5,500 kilometers of coastline made up of mangroves and coral reefs, producing yearly a surplus of natural resources (fishes, crabs, shrimps, sea cucumbers, and oysters) in excess of 300,000 tons. A large part of the countries' economy depends on the sea and its interaction with its inhabitants.

In various fields, blue economy related-projects have emerged and are becoming an economic jewel across the country over the years. These projects have created thousands of sustainable jobs for local companies, both direct and subcontracted; generated royalties from regular payment of taxes; and implemented community projects.

To name a few, these industries include:

- Aquaculture and shrimp-fishing on the West Coast, in which the UNIMA group is a pioneer;
- Seaside tourism in Nosy Be (Northwest), with world-class hotels such as the new Royal Andilana Resort & Spa Hotel which has just opened a few months ago;
- The mining sector with Rio Tinto QMM (titanium dioxide)
- The new **port** of Ehoala in Tolagnaro (Southeast), built in partnership with the World Bank:
- Ambatovy (oil-refinery and export of nickel and cobalt) in the east coast and in Toamasina.

national blue The economyoriented private sector has therefore generated thousands of sustainable jobs with trained local workforce. As an example, we can name the ENAC group and its structuring activities the economic development like the recruitment of Malagasy Marines trained at the ENEM (Ecole Nationale d'Enseignement maritime de Majunga), the global port logistics with the handling of road transport, the country's supply of remote areas with its fleet of flat-bottomed vessels, as a major operator that has already obtained ISO international standards for most of its companies. In the humanitarian arena, the "Mercy Ship" will be arriving in the port of Tamatave in February 2024 to provide voluntary medical and surgical assistance to the Malagasy population.

#### "To be is to be linked"

Madagascar belongs to several regional and international organizations, which have shown a growing interest in the blue economy in island countries: the Indian Ocean Commission (IOC), the Southern African Development Community (SADC), the Indian Ocean Rim Association (IORA), the African Union, the Common Market for Eastern and Southern Africa (COMESA), and the International Organization of la Francophonie (OIF). The Malagasy national authorities have already integrated this priority of the blue economy into their development strategies, with the various ministries concerned, including the Ministry of Fisheries and the Blue Economy, the APMF (Port, Maritime and River Agency), the SPAT (Société du Port Autonome de Toamasina) and others.

#### Why will the rehabilitated port of Toamasina be a major asset for the development of the country's economy?

In increasingly alobalized economy. interactions between countries are made possible by transport infrastructures organized into connected networks, be they sea and air links, undersea cables or satellite links, linked to national routes - all what is known today as "connectivity". Upon completion of the expansion and rehabilitation work currently underway, the port of Tamatave will be able to accommodate much larger vessels with draughts (acceptable depths for ships) up to international standards. This direct reception of large vessels will limit the need for transshipments via other ports thanks to investment by the Japanese government agency JICA (Japan International Cooperation Agency), thus reducing transport time at sea. These new port facilities in a port handling over 80 percent of national traffic will

improve the population's purchasing power by lowering the cost of sea transport thanks to an increased range of services. What is more, the conditions should be ripe for the establishment of new local and international import and export-oriented industries in "special economic zones", which will also generate new jobs thanks to this new international connectivity. Ambatovy, with its shareholder Sumitomo, has been a pioneer in Tamatave in this economic development based on the mining sector (nickel and cobalt), with over 10,000 jobs created, and 90 percent of Malagasy subcontractors, a record for this industry in Madagascar after the establishment of Rio Tinto QMM in Tolagnaro (Fort Dauphin). To ensure the success of its project, Ambatovy had already had to modernize the port of Tamatave with the construction of an additional dedicated quay (extension of Môle B) to international standards.

This is the virtuous circle of the blue economy, which generates its own ecosystem in interaction with the other fundamental pillars of the Malagasy national economy.

#### What are the challenges to be met with this new port "deal" in Madagascar?

It should be stressed that the considerable level of investment required to rehabilitate the port (in excess of 600 million US dollars) is only profitable in the case of a public state investment whose priority strategy is the fight against poverty, with the benefits of new jobs for the population in general, and the collection of new revenues through direct and indirect taxes.

The private sector is not in a position to make such a large port investment profitable. The few cases of private investment in similar situations

(Europe and South Africa) have been loss-making.

Of course, environmental protection, port safety and security, and the availability of energy with a port linked to inland areas by road, rail and air must all be met to optimize the results of this very heavy port investment. These location conditions themselves create jobs.

But Madagascar's other so-called "secondary" ports: Toliara, Mahajanga, Nosy Be, Antsiranana (Diego Suarez), Vohemar, and Ehoala in the south should be consolidated so that an economic balance is maintained with the other provinces, and so that the population also has access to the new jobs generated by the modernization of infrastructures. The country is immense. and to rehabilitate Tamatave alone would be insufficient. Other ports still deserve major technical improvements, which should be the subject of major state investment. Only the State, with its global vision and priority given to the population and the unity of the country, can do this, supported by bilateral or multilateral cooperation. As you can see, the blue economy is the key to sustainable development and job creation, which is quite understandable in a large island like Madagascar.



By Philippe Murcia

Philippe Murcia is the founder of Ocean Company Consulting, former Regional Director of the CMA CGM group and previously General Director of the Port of Ehoala for Rio Tinto QMM. He currently serves as an advisor of the Madagascan ENAC group. He has also been an expert in Maritime Economics for the United Nations Economic Commission for Africa (UNECA), and took part of the collective that edited the Africa's blue economy policy handbook.

# EDBM: Why Invest in the Blue Economy

#### The Blue Economy is future

The Blue Economy is a large concept that encompasses the economic exploitations and conservation of ecosystems and aquatic resources, including oceans, lakes, streams, and other stretches of water. It embraces all sustainable development goals and has considerable economic potential, hence the great interest in it. For several years now, this concept has become an entire economic sector that benefits from numerous agreements, charters, and strategic frameworks on several scales. Numerous international and regional organizations such as the United Nations Economic Commission for Africa, the African Union, and the IOC regularly organize conferences, meetings, and projects to improve and enrich the operating environment for the Blue Economy.

These interests are justified not only by the need to promote environmentally friendly activities, but also by the wealth that the Blue Economy is capable of generating. In fact, aquaculture alone accounts for \$146 billion\* in transactions worldwide every year. Several countries have invested heavily in this sector, most notably Norway, which is implementing national

policies and reforms to promote aquaculture. Norway is currently the world leader in the aquaculture trade and industry, with annual exports averaging \$12 billion\*. This country has made aquaculture the second pillar of its economy after oil and gas. African countries such as Morocco, Namibia, and Senegal are taking their place in the trade, with export figures reaching \$1.4 billion\* a year in the case of Morocco.

# Madagascar: Strengthening the potential of the Blue Economy

The Blue Economy encompasses several sectors of activity based on the sustainable exploitation of water, including tourism, fishing, aquaculture, shipping, and maritime transport. Many of these sub-sectors are structured with a set of well-known potentialities and assets, while others are in the structuring phase and their exact potentialities are still being studied.

Aquaculture is an important subsector of the Blue Economy, which needs to be structured and brought to fruition through investment. Madagascar's hydrographic resources are ideal for aquaculture development, with 1,141,000 Km<sup>2\*\*</sup>

of exclusive economic zone. Norway. which dominates the world market. has only 600,000 Km2\*\* more than Madagascar. In addition, the country boasts 155,000 hectares\*\* of lakes and lagoons of fishing interest; 1,500 km2\*\* of natural waters suitable for fish farming in cages and/or enclosures; 5,600 Km\*\* of coastline, part of which is suitable for marine culture such as seaweed, sea cucumbers, oysters, etc.; 300,000 ha\*\* of mangroves, a veritable ecological niche; and 50.000 hectares\*\* of tannes (mangrove backwaters). 27.000 Ha\*\* of which are suitable for shrimp farming.

Madagascar has already proved its worth in aquaculture, becoming the world's first and only producer of red-label organic shrimp. We are also Africa's leading caviar producer and ranked eleventh in the world caviar trade according to ITC figures. Madagascar has also succeeded in catching, growing, and exporting live lobsters. These achievements demonstrate Madagascar's ability to prosper in this new and innovative activity and strengthen its position in the much sought-after European, American, and Asian markets.

However, despite Madagascar's merits in certain top-quality aquatic

<sup>\*</sup>Source ITC-Trade Map

<sup>\*\*</sup> Source MPEB

<sup>\*\*\*</sup> Sources EDBM



products, the country holds just 1 percent of the world market for fish, crustaceans, mollusks, and other aquatic invertebrates. The national market is still large; fish consumption in Madagascar is only 4.5 kg\*\* per inhabitant per year, compared with almost 60 kg\*\* per inhabitant per year in the Seychelles. However, it should be remembered that fish are a good source of protein and can therefore contribute to the country's food self-sufficiency. Demand is evolving in line with the world's population. and the shortfall is estimated at 65 million\*\* tonnes of products by 2030. This reinforces the country's interest in investing in the sustainable exploitation of fishery resources.

Provided that biodiversity is preserved, there is room for all kinds of productive investment, whether in widespread techniques such as cage fish farming or more demanding productions such as shrimp or lobster farming. Seaweed, bivalve, and sea cucumber farming are other promising activities.

Aquaculture is not the only sector for investment in the Blue Economy, as the wind off the country's northern coast blows at speeds of between 8 and 20 meters per second\*\*\* and is capable of generating 2,000 MW\*\*\* of

power for energy investors. This same wind has enabled the development of nautical activities such as kite surfing, which are attracting an increasing number of sports tourists from all over the world.

## EDBM at the service of investors

The Blue Economy concerns several sectors such as agribusiness, energy, and tourism, which are priority sectors for the EDBM. Attached to the Presidency of the Republic, EDBM works with both the public and private sectors with the mission of improving the business climate, promoting investment, and facilitating investment.

Through its investor services department, it has a dedicated team to advise and support investment project initiators in setting up and carrying out their projects as well as established companies with development projects or specific support needs.

In addition to these facilitation services, EDBM offers a range of online tools to help entrepreneurs, such as the *E-toolia* platform (www. etoolia.edbm.mg), which groups investment opportunities by sector, free downloadable business project

planning tools, and useful information on doing business in Madagascar.

As part of its efforts to improve the business climate, EDBM also offers the *orinasa* platform (www.orinasa. edbm.mg), which enables users to complete the procedures for setting up a company online in the Analamanga region..



By the Economic Development Board of Madagascar

<sup>\*</sup>Source ITC-Trade Map

<sup>\*\*</sup> Source MPEB

<sup>\*\*\*</sup> Sources EDBM

# **Developing the Blue Economy** through Community-Based Fisheries Management



#### Why small-scale fisheries are important?

Over 100 million people in the Global South rely on small-scale fishing for their daily food and livelihood. While small-scale fishers are responsible for half of the world's total catch, they are some of the world's most marginalized people.

In Madagascar, small-scale fisheries (SSF) comprise an estimated 72 percent of the annual catch that support the livelihoods of at least 250,000 fishers. However, these livelihoods are facing a significant threat from the impacts of climate change, as well as overfishing and illegal fishing, causing a rapid collapse of nearshore fisheries and marine ecosystems. Madagascar has developed a number of approaches to sustainably manage natural resources, including a blue economy strategy that places sustainable fisheries as a priority for the country.

#### **Community-based fisheries** management

Community-based fisheries management is increasingly recognized and implemented as a more effective alternative centralized systems previously applied to manage fish stocks and protect key ecosystems.

In 2004, the small fishing village Andavadoaka Southwest Madagascar took a large leap of faith in response to declining octopus catches. Knowing that octopus could

double in size in just one month, they decided to close off certain octopus fishing grounds to see if this strategy would work. On the opening day, fishers from surrounding villages came to take part in a transformative event. Record catches led visiting fishers to implement octopus closures of their own the following year.

Seeing is believing. Exchange visits with fishers and blue economy actors from around the world have catalyzed similar closures, with various iterations for other species and habitats. In Madagascar, these include the annual Indian mackerel and crab fisheries closures in the northwest and lobster fisheries closures in the southeast. The tangible outcomes of these simple management measures have driven the rapid growth of Locally Managed Marine Areas (LMMA) in Madagascar. Community associations have expanded their efforts beyond temporary closures, implementing other effective measures. They collect and use catch-landings and ecological data to track changes over time and adapt management measures to meet their needs. Almost 20 years later, back in Andavadoaka and the surrounding villages, fishers are focusing on protecting key habitats such as seagrass, coral reef, and mangroves through permanent no-take zones to increase fisheries production and ensure fishing livelihoods and healthy oceans for future generations.

However, in the face of evolving challenges, communities fishing need coordinated support from key stakeholders to sustain their efforts for oceans and fishers to thrive. As Madagascar develops its blue economy, one of their greatest opportunities is ensuring that coastal communities have a central role in fisheries management. Securing exclusive rights to nearshore seas for small-scale fishers and increasing transparency in fisheries are examples that highlight the commitment of the government to sustainable fisheries.

#### A model to rebuild fisheries and protect ocean life

Blue Ventures (BV) is a marine conservation organization that puts people first. We support coastal fishers in remote communities to rebuild fisheries and restore ocean life. Our work began two decades ago in Madagascar and is growing globally with a model that works to secure fisher's rights, implement communitybased fisheries management, build financial inclusion and give communities better returns on fishing.



#### By Tahiry Randrianjafimanana

National Technical Advisor -Fisheries Management and Marine **Protected Areas** 

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# A Sustainable Blue **Economy for Madagascar:** Challenges and Ways Forward



Madagascar defines the Blue Economy "Exploitation of all maritime and inland bodies and their resources for economic growth while preserving ecosystems". Α definition emphasizes the conservation of ecological habitats and associated species, with particular attention to the exploitation and sustainable use of resources that benefit the economy and local populations.

In its first series of Policy Brief for a sustainable Blue Economy January 2023, WWF issued five recommendations that could strategic entry points Madagascar: (1) the preservation and restoration of ecological habitats to ensure the productivity, integrity and connectivity of ecosystems. A framework to identify Madagascar's marine and coastal ecosystems, habitats, biodiversity and species needs to be up to date to strengthen conservation priorities. Secondly, (2) management and conservation actions are to empower recognize the rights of coastal communities, which are pivotal in the development of the blue economy and local governance. Community resilience and environmental sustainability are intrinsically linked. And in order to promote long-term blue financing, (3) deterring and implementing measures to prevent

illegal activities such as IUU fishing, while implementing robust and precautionary measures that protect oceans from potential ecological impacts. The means of implementing these policies and non-compliance with existing regulations hampering challenges.

Fourth recommendation, (4)redirectina mainstream finance (under government leadership) towards more sustainable activities and stop subsidies activities that impact the environment with shortterm benefits for the economy. Sustainable mechanisms focusing on finance and market development improve value chains and nurture innovative financing initiatives.

Last but not least, (5) decisions must be based on research & science to improve data availability and decision making.

Towards advancing sustainable blue economy, Madagascar is not starting from scratch. The country's current initiative that supports expanding consolidating Madagascar's marine protected areas network help set conservation priorities for identified key biodiversity areas. And in 2022, Madagascar signed the charter establishing the SADC Monitoring Control and Surveillance Coordination Centre (MCSCC) dedicated to the collective fight against Illegal, Unreported Unregulated (IUU) fishing.

Beside sustainable blue economy implementation principles. the of marine spatial planning (MSP) has been deemed to maintain a balance between environmental conservation and economic development. MSP refers to a process that takes particular account of the principles of integrated management based on ecosystems, human rights and climate change. In Diana Region (Diego, Ambilobe, Nosy Be and Ambanja), approximately 100 stakeholders were identified and consulted including governmental institutions. members of private sector, NGOs and CSOs. In that perspective, MSP process in Madagascar is a bridge between communities and policy makers, enabling community representatives to raise their voices and have their perspective taken in account and addressed in the establishment marine policy frameworks. Bridging this gap between high level decisions and local realities is critical as sustainable blue economy will not work if not at scale and implemented local level. This inclusive principle is not only about ocean governance, it is on all aspects. An illustrative example putting coastal communities in the center sustainable finance flow is happening

in Mahafaly seashore, southwestern Madagascar, with seaweed farming. There, communities benefit training, capacity building and equipment donation from a private operator to ensure their production complies to the norms. This win-win partnership is ensuring stable revenue for communities while making up for the loss of income related to meteorological events, or climate change effects to their livelihood. While communities are farming on the seashore, pressures to the reefs are believed to decrease thus

enabling renewal of fish stocks. It is also ensuring sustainable production of seaweed to be exported abroad to Madagascar, guaranteeing the entry of foreign currency into the country and developing entrepreneurship.

Sustainable blue economy is underway in Madagascar, from the country's Blue Policy Letter drafted in 2015 to the establishment of its Ministry of Fisheries and Blue Economy in 2021. With a cross-sectoral and integrated approach, Madagascar will surely move towards

achieving target 6 of Sustainable Development Goal 14 (Life below water) by emphasizing coordination between the various sectors and stakeholders involved in the blue economy, in order to maximize economic benefits while preserving the integrity of ecosystems.







### Management, treatment and access to drinking water

Qmm implements ambitious projects to promote access to water in Fort Dauphin and surrounding areas

> QIT Madagascar Minerals (QMM), a company steadfastly committed to providing the population with access to drinking water, that invested 10 million Dollars in water treatment, is highlighting its actions in the Anosy region on the occasion of World Water Day.

«Water is life» according to Antoine de Saint-Exupéry. As the promoter of a large-scale, high value-added project, QIT Madagascar Minerals is fully dedicated to improving access to drinking water for the communities surrounding its mining site.

Since October 2021, a memorandum of understanding has been signed to this effect in Fort Dauphin between QMM and the Ministry of Water, Sanitation and Hygiene (MWSH). QMM's technical and financial support amounts to 450,000 dollars over a twelve-month period. Today, the project is starting to pay off. The first achievements have been observed since last year. Through this partnership, the rate of access to drinking water will eventually rise from 45% to 85% in the three surrounding Communes of Ampasy-Nahampoana, Mandromondromotra and Fort Dauphin, for the villages of Andrakaraka and Emanaka in the Amparihy Fokontany.

Key figures

Technical and financial support from QMM, under the Memorandum of Understanding

\$ 450.000 over 12 months

Estimated rate of access to drinking water in the three Communes (Ampasy-Nahampoana, Mandromondromotra and Fort Dauphin)

from 45% à 85%

Estimated current drinking water production and distribution capacity

for 4.500 m<sup>3</sup> to 6.000 m<sup>3</sup>/day

QMM investment in water

\$ 10.000.000

This agreement is part of the implementation of the Southern Emergence Plan. It marks QMM's commitment in this respect and its contribution to the development of the Anosy region. The project meets the inhabitants needs of these Communes and villages. It is part of the priorities defined during the historic symposium organized by the State in Fort Dauphin in June 2021. For this reason, true to its social commitments, QMM is not hesitating to contribute to the building.

For the town of Fort-Dauphin in particular, the aim of this Public-Private Partnership is to increase current drinking water production and distribution capacity. This should increase from 4,500 m3 to 6,000 m3 per day. To ensure the sustainability of the project, both parties have undertaken to set up an effective system of governance for the infrastructure to be built.



One of the Andrakaraka drinking water beneficiaries



#### Building modern, environmentallyfriendly pumping stations

The construction of a pumping station in the village of Andrakaraka is the most important part of this partnership. Committed to the country's economic and social development, QMM has decided to use this collaboration to tackle one of Madagascar's greatest challenges: improving access to drinking water.

QIT Madagascar Minerals has earmarked Ariary 269,877,662 million to fund the installation of this pumping station to supply drinking water to the village of Andrakaraka, in the Urban Commune of Fort-Dauphin

This amount includes the purchase of spare parts needed to maintain this infrastructure in the future.



Modern and environmentally friendly, the station uses a natural filtration method to supply drinking water to the village's three standpipe.

#### 260 million Ar

Funding from QMM for the installation of the pumping station

7,2 KWatts

Power of solar panels powering the station

The system is entirely solar-powered, with 24 panels delivering 7.2 Kilowatts of power, consistent with the Rio Tinto Group's «sustainable mining» approach.

Provisional technical acceptance of the Andrakaraka station took place on Thursday February 23. During this technical acceptance, the handover for the maintenance of the station was given to the Urban Commune of Fort-Dauphin.

From now on, this infrastructure will be the responsibility of the Commune, in partnership with a water users' committee. This is all part of the collaboration between QMM, the Urban Commune of Fort Dauphin and the surrounding villages.

#### An exemplary collaboration

Once up and running, the installation will provide three hamlets in the village with daily access to drinking water and a better quality of life: «Access to drinking water and sanitation is an internationally recognized human right. This is why QMM, as a corporate citizen committed to human values, backs this type of project, which is essential to people's health and dignity. We are grateful to all our technical partners and the community for their commitment to the success of this project, for the well-being of the villagers» said David-Alexandre Tremblay, Managing Director of QMM.

The initiative was made possible thanks to the close collaboration between QMM, its partners and the entire community. Built over a period of five months, the infrastructure is the work of ENERGIS Fort Dauphin, one of QMM's water management contracting parties. In keeping with this participatory approach, the space on which the pumping station is located was generously donated by a member of the community.



« It's my contribution to the well-being and health of my fellow human beings. We would like to thank QMM for this initiative, which reflects their commitment to our community», says Mr. Miha Maurice, landowner.

#### Living conditions improvement for local communities

Over time, access to drinking water and sanitation will also enable children to flourish and succeed at school. From now on, they will have more time to devote to their studies.

There are also plans to scale up this example in other villages, notably Emanaka, a neighbouring village where the same infrastructure is also at the building stage. The Rural Communes of Ampasy-Nahampoana and Mandromondromotra will not be left out. They too will soon have their own pumping stations. All this is part of a win-win public-private partnership between the Ministry of Water, Sanitation and Hygiene (MWSH) and QMM.

For QMM, improving the living conditions of local communities through the supply of drinking water is nothing new.

As a reminder, long before the operations phase, villages located in its intervention Communes such as Ilafitsignana, Ambinanibe, Andrakaraka, Ampasy Nahampoana and Mandromondromotra had already been equipped with standpipes.

For the town of Fort Dauphin, in partnership with JIRAMA, a large pumping station was installed in Lanirano in 2006 to increase the volume and flow of water obtained in order to improve access to drinking water for the people of Fort Dauphin.



#### About QIT Madagascar Minerals

QIT Madagascar Minerals (QMM) is a joint venture between Rio Tinto (80%) and the Government of Madagascar (20%). It is located near Fort Dauphin, in the Anosy region of south-eastern Madagascar, and mainly produces ilmenite, which is a major source of titanium dioxide, used as a white pigment in products such as paints and paper. QMM also produces zirsill, used in the manufacture of ceramic tiles and certain types of electronic screens, and monazite, used in renewable energy technologies such as such as high-power permanent magnets used in wind turbines and electric vehicles. QMM includes the deep-water port of Ehoala, where raw material is shipped to Rio Tinto's Iron & Titanium plant in Canada and processed into titanium dioxides.

# Creating the Conditions for a **Sustainable Blue Economy:** How Can Independent Consultancy Help?

#### The sustainable blue economy challenge

Creating the conditions for a sustainable blue economy (SBE) is one of the major challenges of this Ocean Decade (2021-2030) and beyond. We say sustainable because this aspect sometimes goes unnoticed in the rush towards the blue horizon. And we say beyond, because actually achieving SBE could take more than a decade. Today, flawed policies and incentive structures continue to drive overuse and degradation of valuable but vulnerable marine and coastal resources in the name of the 'blue economy'. This has led to calls for restraint from the sustainability community.

The aim of environmental organizations and other promoters of sustainable development is to positively make sure that the right conditions are put in place to steer coastal countries towards a sustainable blue future. Along with many other actors, independent professional consultancy has a role to play in informing, guiding and facilitating that process and the implementation of sustainable blue economy investments and activities.

#### Consultants are supporting the blue economy agenda

Consultants are already making a contribution to Madagascar's emerging blue economy agenda, contributing in numerous domains such as fisheries, aquaculture, sea and river transport, coastal tourism, marine and aquatic conservation, environmental impact assessment, project evaluation and others. They also aid in policy and strategy formulation such as inter and intra-sectoral coordination. buildina



Andrew Cooke, Resolve Sarl

sustainable blue value chains, designing social and environmental safeguards for blue investments and undertaking strategic environmental and social assessments (SESA) incorporating elements for a sustainable blue economy. Consultants also assist with tools such as blue economic valuation, natural capital approaches, climate vulnerability assessment, marine spatial planning (MSP), remote sensing and more.

#### Consultants aim to provide objective and independent advice

Experience shows that consultants, especially working in teams, can be helpful in clarifying the bigger picture, analyzing complex issues and identifying opportunities for addressing the challenges of a sustainable blue economy. They do this through collecting all the relevant information, analyzing data and facilitating stakeholder consultations to build the necessary consensus for moving forward. Consultants can provide objective and independent input of high quality, often with limited data, in a short period of time. They are familiar with multiple projects and best practices and can leverage knowledge networks and help build awareness. Working with the private sector, consultants can also play a creative role in the conception of projects and business models for the blue economy.

#### Consultants bring different backgrounds and skills to the blue economy

Consultants contributing foundations and development Madagascar's blue economy come from various professional disciplines and backgrounds. At the policy level, we have met with academic consultants from around the world in economics, international law. ocean & climate science, geography, social sciences and even mathematics. At the planning level, we encounter experts in Marine Spatial Planning (MSP), coastal management, governance, public private partnerships (PPP), fisheries & aquaculture, hydrology, agriculture, transport & tourism and others. Once we get to the level of implementation, consultants offer a broad range of skills and tools required in the blue economic process - feasibility studies, business planning, risk & impact assessment, communication, advocacy, digital development. citizen collection, geoinformatics, accounting, responsible sourcing & certification, value chain improvement, carbon & biodiversity accounting, landscape restoration, renewable energy, recycling, marketing, monitoring & evaluation,

auditing and many more. Collectively, consultants promote best practices and the sharing of technology and case studies to address the challenges of a sustainable blue economy.

# Assessing the foundations for a sustainable blue economy in the SWIO

Resolve (Madagascar), in consortium with Sustain Value (United Kingdom), recently coordinated a study by a group of experts from several countries (Madagascar, South Africa, Kenya, Tanzania, Portugal and the UK itself) with expertise in law, economics, governance, environmental ecology. fisheries, assessment and Integrated Coastal Zone Management (ICZM). The study, commissioned by an international NGO with funds from a bilateral donor, aimed to assess the foundations for delivering a sustainable blue economy in the countries of the Southwest Indian Ocean (SWIO), including Madagascar. One of the major findings to come out of the study was that the risks of 'business as usual' are unacceptable to the countries of the SWIO and that the challenges of achieving a sustainable blue economy must be met by governments and the full range of stakeholders. A second key recommendation was that public and private financing, including innovative finance mechanisms, must be mobilized to support the transition to an inclusive sustainable blue economy.

# Innovative finance mechanisms for the blue economy

In Madagascar, at least two innovative public-private finance mechanisms have already emerged. In 2020, USAID and Ocean Farmers announced a five-year blended finance package under USAID's Global Development Alliance (GDA) / Health, Ecosystems and Agriculture for Resilient, Thriving Societies (HEARTH) program to develop village-based seaweed farming across three regions of Madagascar (Southwest, West and Northeast). In 2023, the Madagascar

Biodiversity Foundation (FAPBM) and Madagascar National Parks (MNP) announced their 'blue accelerator fund' for community-based enterprises around Madagascar's marine protected areas (MPAs). Consultants have contributed to designing and implementing these and other innovative finance mechanisms and can help in linking investors and entrepreneurs to opportunities in the blue economy.

#### Other consultant interventions

With funding from the African Development Bank and technical assistance of the consultancy firms BRLi and Best and the Centre for Blue Economy of the UK, national and international consultants recently undertook (i) an assessment and diagnosis of various marine and freshwater activities, (ii) the formulation of a strategy and a national investment plan for the blue economy and (iii) identification of priority investments to be made by development partners. For the first time, Madagascar has a blueprint for the cross-sectoral development of blue economy activities.

In another case, long-established consultants in Madagascar advocated limiting aid in the form of donations (food, money) and replacing it with investments in the creation of local jobs, providing livelihoods while also limiting migration. Examples include several projects funded by EU, GIZ, AFD in the deep south, which is affected by climate change and repeated famine. Reducing post-harvest losses (which represent 34.5 percent of the finfish value chain) and processing to add value (smoking, salting-drying) can create jobs and livelihoods for economic and social benefit without increasing pressure on resources.

In fisheries, a raft of firms has contributed to the recently completed SWIOFish2 program (2018-2023), coordinated by the Ministry of Fisheries and Blue Economy (MPEB) with financing from the World Bank. Consultants engaged by SWIOFish2 have undertaken fishery evaluations,

regional fisheries management plans, fisheries infrastructure design, stock evaluation training and many other contributions to the fisheries sector. As part of the national blue economy strategy development, consultants have undertaken a diagnostic assessment of the state of Madagascar's marine and coastal ecosystems, as well as a range of policy and sectoral analyses. Multilateral and bilateral donors are mobilizing consultants to inform their own policies and strategies, including a rapid economic valuation of Madagascar's marine and coastal ecosystems, exploring novel finance pathways for conserving blue ecosystems and a comparative assessment of the blue economy in Madagascar and other WIO island states.

## Consultants support innovation and change

As a final remark, it is important to recognize the contribution that consultants can make to innovation and change, and the nature of consultancy as a profession.

Consultants in this field contribute not only to knowledge of the ocean environment but also to the adoption of the blue economy in line with rigorous methods and minimum timeframe, thus favoring the rapid implementation of sustainable development strategies and the appropriation of projects by local stakeholders. Consultants can be cost effective, help reduce local conflicts and enable organizational efficiency.



#### .By Andrew Cooke, Resolve Sarl

With contributions and suggestions from: James Spurgeon (Sustain Value), Adrian Levrel (Insuco), Jack Dyer (Blue Economy Future), Sam Ramantsialonina (E2SAM Consulting), Rija Ranaivoarison (Resolve), Cerasela Stancu & Sylvia Lima (Envirostrat), Tom Cushman (Richfield Investor Services), Ted Johnson (E4G), Eulalie Ranaivoson, Heritiana Randriamiarana (Resolve), Tim Healy & Agnes Joignerez (Aquaterre), Mark Fenn (AHT) and Zbig Kasprzyk (independent consultant).

# Madagascar's Oceanic Wealth and Sustainability: Fully Realizing the Potential of the Blue Economy

adagascar, the world's fourthlargest Exclusive Economic Zone. is home to a wealth of coastal and marine treasures. Nestled between the Indian Ocean and the Mozambique Channel, its diverse marine habitats and ecosystems teem with rich flora and fauna. However, this natural marine capital faces threats by climate change, pollution, overexploitation, and other anthropogenic pressures. To harness its marine potential and ensure sustainability, the World Bank has released a comprehensive environmental document "Madagascar's Country Environmental Analysis", including the blue economy sector. This document seeks to uphold a green, resilient, and inclusive approach to development.

#### Madagascar's oceans assets

With an annual production capacity of 750 million USD, accounting for over 7 percent of the national GDP, Madagascar's marine sector makes a significant contribution to economic growth, with a 6.6 percent to the total exports. The fishing industry, both artisanal and commercial, employs 170,000 people directly and 300,000 indirectly, and support around 1.5 million people. However, overexploitation poses a substantial risk to the marine resources.

The country's coral reefs, mangroves, seagrass beds, wetlands, and beaches contribute an estimated 192 million USD annually. The restoration and conservation of these ecosystems could double their value to over 337 million USD each year. Madagascar's

National Determined Contribution (NDC) – a climate action plan to cut emissions and adapt to climate impacts – aims to restore over 150,000 hectares of forest, including mangroves, by 2030.

Madagascar's coastal areas are a magnet for tourists, with 63 percent of visitors flocking to Nosy Be, Antsiranana, Sainte Marie, and Toliara. Unique marine attractions, like whale shark watching, generate substantial revenue, reaching 1.5 million USD during the three-month whale shark season.

Madagascar hosts 27 flag vessels servicing 17 local ports. Six of these are open to international traffic with Toamasina and Taolagnaro as the main hubs. In 2020, the value of transport services trade was 1.4 million USD, 40 percent of which account for transport of foodstuffs.

#### **Emerging ocean sectors**

Madagascar's coast and Exclusive Economic Zone hold promise for emerging sectors such as mariculture, offshore renewable energy, and marine biotechnology.

Mariculture in Madagascar comprises three distinct components: sea cucumber, seaweed, and shrimp which is the economically most important subsector with production of 5,420 tons in 2020, valued at over 50 million USD, most of which is exported. More recently, sea cucumber and seaweed cultivation has been launched, mainly in the southwest and involving local communities. Seaweed production in Madagascar has now reached 17,410 tons (2,300 tons)

of dried products) and sea cucumber production (10 tons of dried products).

Renewable energy, including marine renewable energy, has considerable potential to improve access to energy. The current potential for offshore wind energy in Madagascar is estimated at 154 GW, with 45 GW from fixed infrastructure and 109 GW from floating. The northern (around Antsiranana) and the southern (around Taolagnaro) parts represent the Madagascar's highest wind energy potential. A recent study examined six sources of offshore renewable energy and concluded that Madagascar shows a high potential for wave and wind energy, and a more moderate potential for ocean currents, Ocean Thermal Energy Conversion (OTEC) and Floating Photovoltaic Power (FVP).

The country's marine biodiversity presents opportunities for marine biotechnology research development. Several surveys Madagascar have identified 91 species of algae, 10 species of seagrass, 276 species of hard coral, 271 species of fish and 19 echinoderms. One of Madagascar's longest-running bioprospecting projects screened marine plants and microorganisms for potential medical development.

#### Challenges and opportunities

An effective Blue Economy strategy provides the framework to enhancing the sustainability of ocean sector development. It does this by identifying best practices, prioritizing the sectors to integrate, and identifying appropriate

locations for the development of future industries such as offshore renewable energy, aquaculture, tourism, and future ports for shipping. This Blue Economy lens, however, also needs to be applied to each individual oceanic sector.

Many fisheries in Madagascar are overexploited. The biggest challenge to the long-term sustainability in this sector is improved governance including accurate stock assessments to inform better management planning, and enforcement of fisheries regulations. Climate change also needs to be front and center in the formulation or revision of fisheries management. However, there are opportunities to improve the value of catches through better post-harvest handling and processing, and to diversify fishing activities, including through synergies with the tourism sector (e.g., pesca-tourism/sport fishing).

Marine tourism in Madagascar is still underdeveloped. vet opportunities abound to diversify the sector. Given the sector's high reliance on healthy oceans, a significant challenge is to ensure that marine pollution and water quality are well managed. Here again, the impacts of climate change threaten its sustainability. The integrated nature of the Blue Economy supported by the Marine Spatial Plans (MSP) - a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas - can support the needed response, for example by facilitating synergies between tourism managers, coastal port, and infrastructure managers, as well as disaster response agencies, to ensure that tourism can recover quickly from cyclone events.

The sector is clearly undeveloped and could be tapped to generate income — including for exports — to support livelihoods and improve food security. Shrimp farming, in particular, could clearly be further developed, with a 2013 study estimating the potential for

shrimp production estimated at 58,000 tons per year. Increasing production, however, risks further impacting on mangroves, and even legislation and regulations currently on the books are not effectively implemented. Farming of other marine species such as sea cucumber and seaweed are in the early stage of development and the potential for expansion is considerable. This sector directly depends on healthy ecosystems and, given the need for extensive marine space for such operations, the potential for habitat degradation and conflicts with current and emerging sectors is also significant. Further development should be considered within a broader Blue Economy approach, including relying on extensive MSP.

The opportunities to develop offshore renewable energy are promising. The challenges for the sector are in establishing the sound conditions for private investment that delivers affordable energy and creates decent work opportunities, yet maintains marine ecosystem, and does not generate conflicts with other users of the same space. A Blue Economy approach can support the development of this sector, especially through a sector strategy that draws on MSP to best identify sites for new projects, thus creating the favorable conditions for private sector investment. In addition, other social and environmental concerns must be proactively addressed.

potential for biotechnology applications from marine species in Malagasy waters is considerable. A proactive strategy needs to be developed for the sector to attract the necessary private sector investment. The experience of bioprospecting the terrestrial flora and fauna of Madagascar provides many lessons on developing such a strategy and building these enabling environmental conditions. As such, marine bioprospecting should be included in any Blue Economy strategy for the country according to the document.

#### Recommendations

This analysis emphasizes that sustainable management and restoration of these ecosystems can potentially double the value of the services they provide.

This document advocates for stronger cross-sectoral coordination, extensive consultations, and policy decisions that consider trade-offs and compromises. In addition, Marine Spatial Planning (MSP), and private sector investment are essential components to ensure the accurate valuation of marine ecosystems, conflict resolution among users, and investor access to marine resources and areas.

In Madagascar, the journey towards a thriving Blue Economy is a complex one. Yet, the nation's oceanic riches, commitment to sustainability, and strategic planning provide hope for a future where the blue of the sea mirrors the prosperity of its people.



By Maherintsoa Andrianiaina Source: Madagascar Country Environmental Analysis, World Bank

#### Facts and figures

- EEZ of over 1.22 million square kilometers
- Longest coastline in Africa 5,600 km
- 4th largest Exclusive Economic Zone
- Over 250,000 hectares of mangroves
- US\$750 million fisheries sector
- 6.6 percent to the total exports
- Fisheries and aquaculture production totaled 124,537 tons in 2020, 85% of which are only for fisheries, 1 percent of the total fisheries production in Africa, and around 10 percent of the production in the region.

#### Navigating towards Sustainable Prosperity by Developing a Strong Blue Economy for Madagascar



Humanity is currently at a pivotal moment in its history. The economic development of the last few decades has lifted millions of people out of poverty, but at what cost? In this unbridled pursuit of growth, have we not sacrificed what is most important: the sustainability of our planet.

As a result, we are confronted with an existential dilemma. As the economist Kenneth Boulding said: "is it possible to think of infinite growth in the face of a finite resource?" In other words, traditional economic models as we know them will continue to reduce our natural resources to the point where they will disappear, unless something is done to change them. Therefore, let us face facts.

Climate change, the poor management of our negative externalities and the deterioration of natural resources highlight the urgent need for sustainable management of natural resources. These practices have a devastating impact on marine and coastal biodiversity, as well as on our health, social wellbeing, and economy. Indeed, the inability to mitigate climate change, the loss of biodiversity, the collapse of ecosystems, and largescale involuntary migration are among the top five risks that businesses will face over the next decade. (World Economic Forum, 18th Edition of the 2023 Global Risk Report).

Preventing these risks is a challenging, but not an impossible task. By adopting more sustainable business models, not only can we reverse disastrous trends but we can also forge a more resilient and sustainable future.

## Exploring the blue economy to find a sustainable future

Madagascar, whose beauty is matched only by its marine natural wealth.

Madagascar's Blue Economy has the potential to be a promising path towards a prosperous and sustainable future. According to the UNECA, the Blue Economy consists of the sustainable use and conservation of aquatic resources in marine and freshwater environments. It includes activities that exploit aquatic resources (fishing, mining, petroleum, biotechnology, etc.) or use aquatic environments (maritime transport, coastal tourism, etc.), as long as they are carried out in an integrated manner, fair and circular.

Madagascar is a true treasure trove of opportunities in the blue economy, a true jewel of biodiversity. For example, the fisheries sector in Madagascar is a direct source of income for over 170.000 people and an indirect source of income for 300,000 people. It provides a source of income for over 1.5 million people. According to a World Bank report in 2020, it contributes to an annual production of 750 million dollars, or 7 percent of the national GDP. The coastline and exclusive economic zone of Madagascar have a significant potential for emerging industries such as mariculture, offshore renewable energies, and biotechnology.

Also, by focusing on creating local jobs, developing local skills and stimulating entrepreneurship in tourism, maritime transport, renewable energies, fisheries and aquaculture, Madagascar will strengthen its economic resilience while preserving its natural capital.

The blue economy promotion requires a strong commitment from stakeholders and a recognition that sustainable economic growth cannot be separated from environmental preservation. The integration of natural resource management necessitates close

collaboration between government, the private sector, civil society organizations, the scientific community, technical and financial partners, and local communities.

# What are the opportunities associated with the blue economy, and how can the private sector capitalize on them?

Through various projects and initiatives, the private sector can make a significant contribution to the promotion and development of the blue economy:

- Developing and promoting tourist destinations that respect nature, the local population and culture;
- Investing in sustainable fisheries practices that link the exploitation and management of marine resources and by developing sustainable aquaculture farms that are environmentally friendly and economically viable;
- Investing in clean, renewable energy, while improving energy efficiency;
- Adopting environmentally-friendly technologies and investing in the modernization of port infrastructures aimed at optimizing ship management and reducing impacts on coastal ecosystems.

By investing in the blue economy, the private sector is reinforcing its role as a driver of job creation and a generator of shared value. The very essence of Madagascar's blue economy depends on balancing economic growth with protecting the environment. This is one of the best approaches we can take to ensure our own and future generations' development.



By **Fleuricia Rabefitiavana** Communication and Events Manager, INNOVEO









MAMMOGRAPHY



SCANNER



ANGIOGRAPHY

OUR AMBULANCES (Emergency rapid response unit):

- SMUR (medical transport of patients requiring emergency care monitoring and resuscitation.)
- VSL (medical transport of patients who are able to travel in a seated position.)

#### MHV / ADH:

- Medical Home Visits (MHV)
- Home Hospitalization (ADH)
- Personal discretion

#### **SANITARY EVACUATION:**

- Inside Madagascar
- Outside Madagascar



24h/24 & 7days/7

#### **MATERNITY** CENTER

- Consultations (prenatal, postnatal, gynecological)
- Childbirth (vaginal delivery,
- Surgery (gynecological surgery, Neonatology (pediatric resuscitation,
- Vaccination (Mother / Child)
- Infertility treatment

# MEDICAL ANALYSIS LABORATORY

#### **MEDICINE**

- General medicine
- Specialized medicine
- -COVID 19 -Medical reanimation
- -Cardiology (EEG, Holter ECG,
- 3D / 4D colored Echodopplei -Cardiac Intensive Care Unit (CICU)
- -Neurology
- (digital electroencephalography)
- -Endocrinology -Diabetology
- -Nephrology (Hemodialysis)
  -Pulmonology (Covid-19 Antigenic RDT
  Covid-19 PCR test, Arterial blood gas)
- -Psychiatry / Psychology -Dermatology
- -Internal medicine
- -Infectious diseases
- -Rheumatology -Pediatrics
- -Functional rehabilitation
- -Oto-rhino-laryngology (ORL)
- -Ophthalmology

#### **SURGERY**

- Image intensifier surgery
- Orthopedic surgery
- Visceral surgery
- Thoracic surgery
- Maxillofacial surgery
- Urological surgery
- Neurosurgery

#### **IMAGING**

- Digital radiology (versatile use can be moved to patient beds.)
- 128 slice CT scanner
- Mammography
- Ultrasound scan
- Digestive endoscopy

- Bronchial endoscopy
- Angiography
- Image intensifier

#### **EMERGENCIES** SERVICE

- Emergency unit
- Resuscitation rooms

- CBC, Protein C system, blood electrolyte, urine electrolyte, creatinine, urea, calcum test, magnesium test, phosphormia, ASAT or SGOT, ALT or ALAT, conjugated bilirubin, GGT, ALP, HDL, total cholesterol, LDL, triglycerides, uricemia... Arterial blood gas
- Allergen-specific immunoglobulin E (IgE) test
- Sérologies: hepatics (AgHbe, AgHbs, AC anti VHC, HIV), parasitic
- Serum drug dosage
- markers of inflammation dosage (CRP, Procalcitonin)
- Anemia exploration (ferritin, folic acid, vitamin B12)
- Serum hormone dosage: AFP, F8H LH, Beta HCG, Progesterone, Prolactin, Testosterone II...
- Tumor markers dosage CA 125, CA 19-9, Calcitonin, PSA, CA 15-3 ...
- Cardiac risk markers: CPK-MB, BNP, Pro-BNP, Myoglobine, Troponin
- Bone metabolism dosage: PTH, VitD
- Antibody testing for autoimmune diseases (AAN, AC anti-CCP, ANCA ...)
- Diabete exploration: blood sugar, HBAlc, Fructosamine
- Hemostasis: D-Dimers, TP, TQ, TCA, INR, Fibrinogen











# **AmCham's Third and Fourth Quarter Quick Activity Report**

AmCham got into lull pace after an intense series of POWER workshops. Let us look back at them.

#### **POWER workshops**

The US Embassy and AmCham wrapped up the series of POWER workshops in Antsirabe last June.

As a reminder, AmCham had the privilege to be funded by the Bureau of Economic and Business Affairs of the U.S. Department of State to lead a series of three workshops in partnership with the U.S. Embassy in three regions of Madagascar, namely Analamanga, Atsinanana and Antsirabe. The "Providing Opportunities for Women's **Economic Rise (POWER)"** program intends to facilitate U.S. market access to companies led and owned by women that are involved in the agribusiness sector in these three regions. AmCham and the US Embassy collaborated to organize a three-day workshop in each of these regions. Participants learned about the opportunities that lie in the U.S. market for Madagascar, good business practices, US regulations, opportunities of funding, and business English.

Around 180 women business leaders in the agri-food sector attended the sessions held in these three cities. The events created a network between the participants. They were able to establish direct contact with the intervening experts to tailor-made advice.



POWER participants in Antsirabe

The final series took place at the Menabe'L Hotel, Antsirabe. The opening remarks were given by Mr. Tom Cushman, Vice President of AmCham, and Ms. Keri Ernst, Professional Associate in the Political, Economic, and Commercial Section of the U.S. Embassy in Madagascar and Comoros.

It was just starting. AmCham is keen to carry on assisting them in order to export their products in the United States.

#### Valuable support from Sponsors and Partners

AmCham is again grateful for the support of its partners that have agreed to converge towards this endeavor: Miarakap and MVola as Gold Sponsors; Fedex, SOCITA, BushProof, and Ts'art Fibre as Silver Sponsors, NextA as Partner. The unprecedented support from these partners is wondrously extraordinary. Dear partners, thank you!

#### AmCham General Assembly

After years without a General Meeting, AmCham finally got together for its yearly traditional event. Members approved the activities and financial report for 2020-2021-2022, as well as the budget for the coming year.

#### **Newly-elected Board Members**

The Assembly elected the new AmCham's Board of Directors, which will serve from 2023 to 2025. Only one slate was proposed, and the vote led to the clear re-election of the one presided by Mr. Russell J. Kelly from

#### Officials

#### President

Russell J. Kelly - Natural Resources Consulting

#### **Vice President**

Tom Cushman - Richfield Investor Services

#### **Treasurer**

Winifred Fitzgerald - Fitzkara, Ambatovy

#### Secretary

Larissa Ratsiraka Tronc - Redland

#### **Board of Directors**

Marcellin Andrianarivelo-Razafy - Fraise Group Andriamisa Ravelomanana – Pricewaterhouse Coopers John W. James - Mioty Voajanahary Jean Claude Mazingue - Labeltex Eco Ltd. Fred Rittlemeyer - The Madagascar Water Project



The newly-elected board members along with Mrs. Juliana Kim, Chief Political and Economic Section at the U.S. Embassy in Madagascar, who represented the U.S. Ambassador to Madagascar and Comoros

The new board members will serve for the next two years. We look forward to seeing AmCham reach an even higher level.

### AmCham, Platinum Sponsor of the Salon RSE & IDD

For the second time, AmCham supported this year's edition as a **Platinum Sponsor**. This time, the role and position of the private sector regarding the conservation of this biodiversity were discussed through panel sessions under the topic: "Private sector and biodiversity: constraints or opportunities?". The event was hosted by Ur-CSR at Novotel Alarobia on July 6 and 7, exhibiting two AmCham members among others, namely **Honey of Madagascar** and the **Groupement des Exportateurs d'Huiles Essentielles de Madagascar (GEHEM)**. Several other members also had their own stands.



AmCham alongside Honey of Madagascar and GEHEM

# TMRT with the International Finance Corporation team

On July 6, three staff members of the IFC gave a presentation about financing opportunities the organization can provide. The IFC team were represented by:

- Mr. Ram Akers, IFC Country Officer
- Mr. Kevin Evrad Assang Abanda, IFC Operations Analyst
- Mrs. Era Andriambololona, IFC Country Cluster team member

They focused their presentations on informing what kind of investment and advisory they offer, what their criteria are, and how to approach the institution to get financing.



The IFC team during TMRT in July

09

By Maherintsoa Andrianiaina

### **AGOA** Resources Center

#### Four Madagascan companies exhibited at the Sourcing at Magic, Las Vegas last August

In a generous gesture of support, the Economic Development Board of Madagascar (EDBM) sponsored three booths for members of the GEFP and the American Chamber of Commerce (Amcham). This collaboration not only reflects a commitment to fostering international partnerships but also underscores the spirit of appreciation for the shared goals and initiatives. The organizers express heartfelt thanks for the sponsorship, acknowledging the pivotal role it played in enhancing the presence of GEFP and Amcham members at the event. The success of this collaboration serves as a testament to the strength of tripartite ties, and with gratitude in heart, the commitment is affirmed to continue this fruitful collaboration in the future, creating more opportunities and avenues for mutual growth and cooperation.

Here they are:

- Socota Garments
- Haytex Madagascar
- R'art

We sincerely appreciated the great gesture that Best Brand apparel has shown by paying for its own booth.

The exhibitors had the opportunity to meet Mr. Paul Rybersthe President of The African Coalition for Trade (ACT). He shared and exchanged on the future of AGOA. ACT and its members leverage Mr. Ryberg's extensive expertise in addressing trade law issues that impact Africa.

Additionally, Mr. Ram Sareen, the Chairman-Founder of Tukatech TUKAweb - TUKAcenters, enlightened exhibitors on the advantages of integrating Fashion Technology in Africa.

Market access starts with obtaining orders from international buyers. There exists a comprehensive procedure for achieving the required international standards of quality, quantity, and visibility

#### About the show:

"Sourcing at MAGIC" (S@M), owned by Informa, is a Textile and Apparel Fashion trade show, the largest in the Western hemisphere. The last edition was held from August 07th to August 09th, 2023 in Las Vegas, Nevada, USA.

Attracting representatives from 31 countries, SaM seamlessly links Men's, Women's, and Children's Apparel and Accessories across the entire supply chain. The show acts as a magnet, bringing together clothing manufacturing,



Best Brand Apparels exhibiting at the Sourcing at Magic show

component, technology, and service providers worldwide. Designers, brands, and retailers converge at S@M to discover what they need for advancing their businesses. This inclusive platform serves as a vital channel for African companies aiming to penetrate the US market and for global industry players seeking innovation and strategic growth. Beyond a traditional trade show, SaM propels collaboration and advancement within the dynamic fashion industry.

Warm thanks to AGOA RC Madagascar AmCham's collaborator: the Economic Development Board Madagascar (EDBM).



By Lalaina Rakotoarisoa







#### **ANNOUNCEMENT**

#### Upcoming Trade Shows in 2024:

- Sourcing at MAGIC in Las Vegas,
- IFT Food Expo, McCormick Place, Chicago,
- Natural Food Expo East,
- Sourcing at Magic, Las Vegas, August 2024
- Sourcing in New York.

#### For further information:

es@amcham-madagascar.org (+261) 32 05 596 02 | 33 23 004 74 Building C1, Explorer Business Park Ankorondrano, 101 Antananarivo



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# Celebrating an Unlikely Conservation Hero

Sea cucumbers — which expel their guts to keep predators at bay — provide immense benefits to communities

When under attack, the squishy, sausage-shaped sea cucumber can actually eject part of its intestines, along with a toxic chemical, at a hungry crab or other predator.

Worldwide, there are more than 1,700 species of these echinoderms, the same animal group that includes the more well-known starfish and sea urchins.

In virtually all marine environments around the world, sea cucumbers move their bodies along the seafloor on tiny tube feet, feeding on decaying organic matter.

In fact, the average sea cucumber can swallow nearly 100 pounds of sediment in a year, making them an important part of maintaining a healthy marine ecosystem.

The populations of many species of sea cucumbers have also been drastically overfished because millions of people

around the world, especially in Asia, consider them a delicacy. The numbers of these animals in places like Australia, the Galapagos, and Madagascar have crashed.

"I used to look for sea cucumbers. Now there are none left. We've dried up the resource," explains Yvette, a fisher living in Belo-Sur-Mer, a village along the west coast of Madagascar. "So I started growing seaweed. It's easy to grow."

Launched in 2022, the public-private sustainable partnership promotes sea cucumber and seaweed farming with Ocean Farmers and Indian Ocean Trepang, two local aquaculture companies. This five-year, \$6.3 million partnership works with local communities in northeast and southwest Madagascar.

Partnerships like Nosy Manga are being celebrated for the role they to play in conserving biodiversity, from national to local governments, from the private sector to private citizens.

Nosy Manga is one of many partnerships Health, under Agriculture **Ecosystems** and Resilient, Thriving Societies (HEARTH) Global Development Alliance initiative, where USAID and the private sector work together to identify and solve development challenges.

For every dollar USAID invests in HEARTH activities, private sector partners will co-invest the equivalent value in cash or in kind. In addition to Ocean Farmers and Indian Ocean Trepang, other Nosy Manga partners include Wildlife Conservation Society. Blue Ventures, World Wildlife Fund, and Cargill.

Through the 16 current HEARTH programs around the world, USAID and



Sea cucumbers post-harvest staying fresh on a bed of salt. / Zack Taylor, USAID/Madagascar



Women carry a load of seaweed post-harvest to be processed in Atsimo Andrefana. / Ocean Farmers



Sea cucumber farmer collects baby sea cucumbers in Atsimo Andrefana. / Zack Taylor, USAID/Madagascar

private sector partners collaborate with communities to confront development challenges. Similarly, stakeholders across sectors - conservation, food security, health, and governance - cooperatively design synergistic programming that enhances the resilience of people and the planet.

Nosy Manga focuses on conserving marine biodiversity while sustainably managing marine resources to benefit local communities.

"Nosy Manga is a project with great potential to create a model of sea cucumber and seaweed production that will benefit both marine ecosystems and local communities," former USAID Madagascar Mission Director Anne N. Williams said. "This approach reduces poverty while preserving natural resources and improving the health of marine ecosystems as part of a stronger, more resilient aquaculture sector in Madagascar."

The project is only in its second year, but already participating aquaculture farmers are seeing results. Seaweed and sea cucumber farmers are learning sustainable farming techniques, farm management, disease prevention, and other risk coping strategies through

training with Ocean Farmers. Almost 200 seaweed farmers, including Yvette, joined the program so far.

Through Nosy Manga, the company and farmers signed an agreement stipulating that if the farmers use sustainable production methods, Ocean Farmers will buy their entire harvest at a fixed price regardless of global price fluctuations. The seaweed is later processed to extract carrageenan for use as a thickening agent in the food industry. In just the first year of Nosy Manga, participating farmers sold nearly 175,000 pounds of seaweed. The main buyer of seaweed products is the U.S. firm Cargills, one of the largest American food corporations committed to source red seaweed from sustainable environmentally friendly farming.

"Seaweed farming has positively changed my life," says Aurélie, a mother of six and a seaweed farmer from Soariake, Salary Nord in southwest Madagascar. "This activity allows me to educate my children. It is a sustainable source of income for my family."

Nosy Manga's sea cucumber farming will take longer to establish. The first juvenile sea cucumbers will be distributed in the project's third year and market-sized sea cucumbers sustainably and legally harvested for sale, largely in Asia, 15 months after.

Indian Ocean Trepang is the lead partner in this portion of the project, and the company and participating communities identified nearly 800 acres of potential sites for sea cucumber enclosures. The company is testing the various locations to see if juvenile sea cucumbers are able to grow and thrive there.

These seaweed and sea cucumber farming activities will ultimately provide new, sustainable sources of income to complement traditional livelihoods such as fishing – without extracting or damaging natural resources.



Aurélie, seaweed farmer in Soariake, Salary Nord in southwest Madagascar holding packaged seaweed. / Ocean Farmers

And as pressure on all wild fisheries is reduced, these populations will rebound to the point where they can once more be sustainably harvested. This is important for the future of Madagascar, since the fishing sector is a leading source of income for local communities and the island nation.

Nosy Manga is helping farmers adopt strategies that generate high financial returns and simultaneously contribute to the conservation and restoration of Madagascar's coastal and marine ecosystems.

Sustainable aquaculture is priority sector to develop in the Malagasy Blue Economy since it has the great potential to ensure sustainable supply food to vulnerable and malnourished population.

A vibrant blue economy benefits local communities, fish, and even weird squishy sea cucumbers – an unlikely hero for Madagascar's marine ecosystem.



# The Malagasy 2023 Mandela Washington Fellows Share their YALI Experience





#### Marcellin Randrianasolo Tsihoboto

Leadership in Public Management University of Minnesota

I am the Chief Officer of Fishery and Aquaculture at the Ministry of Fisheries and Blue Economy. The leadership program taught me to be more openminded and more confident. I have learned lifelong leadership skills such as the importance of valuing diversity and social inclusion. While in the U.S., I enjoyed volunteer activity sessions which taught me a sense of humanity and community engagement. I have become more sensitive to issues related to corruption, human rights violations, and injustice. Knowledge and skills acquired from the fellowship will help me to set up a more inclusive and transparent decision-making tool that will benefit all stakeholders working in fishery in my department. Concretely, I plan to develop a complaint management system to allow the fishermen community to be heard and to improve our fishery governance.



#### Andréas Jonathan Mickaël

Leadership in Public Management Cornell University

I currently work as Head of the Adaptation Policy Coordination Division at the Malagasy Ministry of the Environment and Sustainable Development. I completed leadership in Public Management track at Cornell University. The

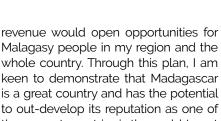
Mandela Washington Fellowship program gave me direction and confidence in my work and my career in general. I have gained various skills at the institute, such as: public management, infrastructure financing, health equity, and climate change. The extremely supportive environment enabled me to further develop my leadership skills in the public sector. For the next steps, I plan to continue my work in the environment sector and climate change. I will also develop inclusive projects in these areas at the local level.



Henristudio **Solofoniaina** 

Leadership in Business University of Nevada-Reno

The Mandela Washington Fellowship program has enabled me to pursue my goal of fostering sustainable tourism potential through my tour company, Madagascar Island Tours. I acquired a variety of experiences and perspectives in the tourism industry while I was in the United States. In Madagascar, opportunities abound to promote the ecotourism industry. My town, Antsiranana, for instance, is surrounded by many beautiful parks and attractive places for tourists such as: Amber Mountain National Park, Ankarana National Park, Tsingy Rouge, three bays, and so many other natural wonders. This ecotourism could promote education about the preservation of the beautiful landscapes in my region. I am confident that my country will greatly benefit from the new perspective and new ideas that I learned from the YALI program. Access to this new economic sector of



the poorest countries in the world. I want to educate tourists or anyone visiting my beautiful country to show that even though it faces many challenges like poverty, hunger, and other challenges, it has great growth potential.



**Felana** Rajaonarivelo

Leadership in Business Drake University

The Mandela Washington Fellowship program, featuring the transformative sixweek Business Track at Drake University in Des Moines, Iowa, and participation in the prestigious Washington Summit, has been an empowering journey, particularly as a young African woman leader. What resonates deeply is the power of connections forged during this experience with fellow alumni across the continent, and invaluable career mentors. The essence of leadership, embracina diverse voices authenticity, understanding strengths and weaknesses, fostering openmindedness, and celebrating every success, underpins my takeaways. Notably, my documentary film, "Debout" screened in the United States at the Harkin Institute in Des Moines in July and in Washington, D.C. during the Summit in August, marks significant milestones in my MWF 2023 journey. Upon my return home post-summit, I'm impassioned to leverage my newfound insights. My mission is to empower Malagasy women through the evocative mediums of art and storytelling. I will relentlessly champion gender equality, inclusion, and diversity through captivating platforms like photo exhibitions and documentary films. These initiatives will blossom into vibrant events, enlightening conferences, and enriching training programs. My goal includes facilitating reciprocal exchanges, allowing U.S. citizens to share their invaluable wisdom with our promising Malagasy women leaders.



Karine Mahefarisoa

Leadership in Public Management University of California – Davis

The YALI program was a unique experience in my career and an amazing opportunity to network, which allowed me to create long-lasting connections. We were trained by highly skilled professionals. Further, I learned a lot from my peers and was able to improve my communication skills, lobbying, and advocacy strategies. These are important skills that I need in my field.

As a conservationist, I will be more impactful in my communication with different stakeholders involved in environmental management. Also, I feel more confident to advocate for the local communities living in the vicinity of protected areas in Madagascar.



Faniry Andrinjafy

Leadership in Public Management Bridgewater State University

The Mandela Washington Fellowship (MWF) program has been truly transformative on both personal and professional levels. I am the founder of the Organization for the Protection of Children's Rights. I also hold a master's degree in law and Private Business

Administration. I pursued the Public Management track at Bridgewater State University where I gained essential skills in public management. During the MWF fellowship, I acquired a deep understanding of effective public management strategies, leadership, and intercultural collaboration. I also expanded my network by connecting with like-minded individuals from various African countries. I plan to apply the knowledge and skills I acquired in the United States to make a meaningful impact in my community and my country. I am dedicated to promoting children's education rights through our organization in Madagascar. By implementing innovative strategies, I aim to improve access to quality education, ultimately contributing to the development of our nation. I am excited about the prospect of sharing more about my journey during the fellowship and how it has strengthened my commitment to positive change in Madagascar.



José Makavelo

Leadership in Civic Engagement Kansas State University

The Fellowship allowed me to garner tried and true skills that will help me better identify community needs and bring my contributions toward them. Furthermore, it was a unique opportunity to share and learn more about Africa from different speakers as well as other African Fellows. More importantly, the Fellowship gave me ample exposure to the U.S. culture and values that I have never had. Going forward, these skills will be valuable in enhancing my work as the Program Coordinator of the American Corner Taolagnaro. I run a program of activities that focus on mutual understanding promoting between the people of the U.S. and Madagascar, while empowering the

youth population in the southeast Madagascar in partnership with the U.S. Embassy in Madagascar. The fellowship inspired me to believe that, "No community challenges will be solved focusing on the symptoms, we must get to the roots.'



Tojo Razafimaharo

Leadership in Public Management Arizona State University

The Mandela Washington Fellowship enabled me to understand some of the U.S. approaches to innovation in public services. Thanks to our site visits and networking activities, I benefited from advice and experience shared by American leaders, including a Justice and prominent change maker at the State's Supreme Court, the State's CIO, and County and City management staff. I received additional insights about the importance of people and data in successful reforms. The academic. leadership, and coaching sessions of the program also increased my self-awareness in terms of strengths, goals, critical thinking ability, and paths to explore to continue growing as a leader. I intend to build on this experience to better identify and support significant reform ideas for the Malagasy Judiciary. In addition, I plan to make the most of the new connections developed during the Fellowship as technical resources for future initiatives.



Nantenaina Nirisoa Ardo

Leadership in Civic Engagement University of Georgia

The leadership training was of a very high level. This helped me to learn more about my strengths and weaknesses and how to use them for both my personal and professional development. I feel



#### Miarizaka Fabien Randriamananjara Leadership in Business

Purdue University

Thanks to the YALI Fellowship, I enriched my technical skills in the field of modern agricultural production. I was immersed in innovations and technologies through

visits to research centers. The fellowship activities inspired me and helped me generate innovative ideas such as remote sensing, electronics, and robotics on mechanization and automation of production. It also provides me with exposure to the use of algorithms on genetic manipulations in the breeding of new varieties of produce. The Common Leadership Curriculum has helped me to grow in my role as a leader within my community in the rural areas of central Madagascar, thanks to the self-awareness it has given me about my dominant strengths. All the skills I received throughout the above-mentioned program will help me explore the possibilities of technology transfer, particularly among smallholder farmers, to help them develop and see agriculture as a business activity rather than a means of survival.



#### Diamondra Julianna Rafiringa

Leadership in Civic Engagement University of Delaware

The YALI Fellowship was both a way of assessing and improving my leadership qualities. Thanks to this program, I came out more confident and committed. Also, I witnessed and put into practice clear, simple, innovative, and valuable tools and tactics to communicate, organize, and spread the vision. I intend to bring these home to adapt to my community and country setting. In the long run, these skills will not only help me to raise the commitment and sense of responsibility of my community, but also to empower the leader in every individual of this community.



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# Merry XMAS & Happy New Year 2024





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  Antananarivo , Madagascar
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- f Interex SA



# HYBRIDISATION OF 4 PLANTS

For Groupe filatex, Madagascar's energy future depends on the production of green, renewable electricity. With this in mind, the group has begun its approach with its four solar power plants located in Antsiranana, Mahajanga, Toamasina and Toliara.







