

Community-based aquaculture

Pioneering viable alternatives to fishing

“ A model for everyone
working to conserve the
natural life-support systems
of our troubled planet. ”

SIR DAVID ATTENBOROUGH



A need to diversify

Traditional small-scale fisheries are fundamental to the livelihoods and food security of hundreds of millions of people throughout the world. Yet marine ecosystems and the fisheries they support are facing unprecedented pressures.

With soaring demand for seafood, there is a critical need to diversify coastal livelihoods to reduce pressure on resources.

In southwest Madagascar, geographic isolation and an arid climate means there are few economic opportunities beyond fishing, and coastal people are highly reliant on the sea for their survival.



>1 billion

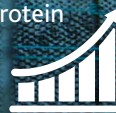
people worldwide rely on fish as a source of protein

90% 

of global fish stocks are either overfished or fully fished

92% of Madagascar's population lives on less than US\$2 per day

Demand for fish as protein source is expected to rise by over **20%** by 2030



Aquaculture now accounts for almost **50%** of total fish supply for human consumption



Farming the sea

Blue Ventures is working with coastal communities and private sector aquaculture businesses in Madagascar to develop viable livelihood activities appropriate to the local environment and culture.

Our community-based aquaculture initiative is providing coastal people in southwest Madagascar with new sources of income, allowing improved access to food and education, while alleviating pressure on marine biodiversity.

Working with the University of Toliara's Marine Science Institute (IHSM), local seafood exporter Copefrito and aquaculture company Indian Ocean Trepang (IOT), Blue Ventures is connecting isolated coastal communities with lucrative international markets for seaweed and sea cucumbers, enabling families to develop their own aquaculture businesses.

Our aquaculture specialists have trained over 700 people to become farmers of sea cucumbers (*Holothuria scabra*) and red "cottonii" seaweed (*Kappaphycus alvarezii*).

Sea cucumbers (known as *trepang* after processing) are in high demand in Asian markets where they are considered a delicacy, health food and aphrodisiac, while red seaweed is widely used in food and cosmetics industries as a texturing agent.

   **700 people**
    trained to farm
sea cucumbers
and seaweed

 **>50%**
of farm leaders
and farmers are
women

4 village savings
associations
and
5 farming associations
established to date

Why seaweed and sea cucumbers

- Well suited to Madagascar's extensive shallow coastal lagoons
- High demand from lucrative international markets
- Farms operate with low running costs
- Production methods are simple, requiring minimal initial training, and producing negligible adverse environmental impacts
- An established network of business and research partners provides assured access to markets, hatchery technology and supply, and technical expertise to maximise the benefits to communities



“ Seaweed and sea cucumber farming is providing me with a new opportunity to earn money. I have learned how to manage and save money, and now I can send my children to school. ”

NARINZA, 23 YEARS OLD,
MARRIED WITH TWO CHILDREN



Catalysing local entrepreneurship

We are committed to developing models for community-based aquaculture in which farms are fully owned and operated by communities themselves.

Our aquaculture team provides materials and technical guidance, and assists with start-up costs.

In partnership with CITE, a Malagasy NGO supporting local socio-economic and entrepreneurial development, we also help to nurture small business development with training

programmes that build the technical, financial, managerial and organisational skills needed by fishermen and women to manage their own aquaculture businesses.

This support is fundamental to improving revenues and working towards the long-term sustainability of aquaculture businesses in these isolated communities.

Our impact

Every year new farmers and villages join our aquaculture programme, increasing the number of people benefiting from alternative livelihoods. Over half of the farmers supported by Blue Ventures are women, who often use this new income to help pay for children's school fees and supplement their family's diet.



236
active farmers
across 16 villages
in southwest
Madagascar
are cultivating
red seaweed or
'cottonii'



146
tonnes
of red seaweed
harvested to date

\$463

earned by the best
seaweed farmer
last year

>23,750

market-sized sea cucumbers
sold to date, with a
total value of more than

\$18,000



104
active farmers
across 2 villages
in southwest
Madagascar
are cultivating sea
cucumbers



240

seaweed and sea
cucumber farmers
have been trained
in small business
management to date

**Belo-Sur-Mer
Region**

**Velondriake
Region**

• Andavadoaka

• Morondava

• Belo-Sur-Mer

0 10 20 30 40 Kilometres





Scaling success

Introducing new innovations in coastal aquaculture is not a simple task, and requires strong technical partnerships and practical experience. The commercial nature of many aquaculture businesses means that results and developments are generally not publicised; experiences of overcoming technical, logistical and financial challenges in production are rarely shared.

Blue Ventures is committed to promoting and sharing best practice in community-based aquaculture, maximising the number of people able to benefit from these livelihood activities. We are working to improve connections between aquaculture initiatives, developing a new Indian Ocean network for practitioners, and sharing our experiences from Madagascar.



45
**aquaculture
practitioners
attend seminal
workshop in
Zanzibar**
for community-
based aquaculture in
the western Indian
Ocean, hosted by Blue
Ventures and WIOMSA

Partners for innovation

Our aquaculture programme is supported by Norges Vel, an international NGO with expertise in tropical mariculture development. We also work with a range of local partners including:

- The Velondriake Association: the management body of the Velondriake Locally Managed Marine Area (LMMA), a 650 km² community-based conservation initiative in southwest Madagascar
- Copefrito: a local seafood export company with a commitment to the sustainable management of Madagascar's marine resources
- Indian Ocean Trepan: a sea cucumber hatchery and aquaculture business that works with communities to provide juveniles for community production
- Institut Halieutique et des Sciences Marines (IHSM): the marine science and fisheries research institute of the University of Toliara
- National fisheries and aquaculture authorities: support the project through the development of a supportive legal framework for aquaculture
- CITE (Centre d'Information Technique et Economique): Malagasy NGO providing practical small business training to entrepreneurs



We rebuild tropical fisheries with coastal communities

Blue Ventures works with coastal communities to develop transformative approaches for catalysing and sustaining locally led marine conservation.

We work in places where the ocean is vital to local cultures and economies, and are committed to protecting marine biodiversity in ways that benefit coastal people. Our conservation models are designed to demonstrate that effective management improves food security and makes economic sense.

Over the past decade, our innovations have guided national fisheries policy and been replicated by communities, NGOs, businesses, donors and government agencies along thousands of kilometres of coastline. So far our work has impacted the lives of more than 150,000 coastal people.

Working holistically

Blue Ventures recognises that improving fisheries management alone is not enough to overcome the numerous and interrelated drivers of marine environmental degradation.

Our programmes in Madagascar encompass locally led marine conservation, sustainable fisheries management, community-based aquaculture and ecotourism businesses, educational scholarships and reproductive health services.

Our integrated approach addresses the interconnected challenges of poor health, unmet family planning needs, environmental degradation and food insecurity in a holistic way. It enables communities to manage their resources sustainably, both now and for the future.



Communities first

Above all, we listen to community needs, responding in a sensitive and pragmatic way for lasting benefits.



Passion & belief

Our mission is urgent and critical, we believe that our models work, and we are determined to get the job done.



Valued people & effective teams

We work in diverse and inclusive teams where all members have a voice and influence. We are effective because our work is integrated across teams and projects.



Innovation & courage

We are resourceful and creative. We are prepared to take risks and challenge broken paradigms.



Openness & humility

We are an open source social enterprise. We work in a transparent and collaborative way to pass on what we learn to others who share our vision and passion.



Grounded in evidence

We have high standards and are not afraid to be self-critical. If we see that something doesn't work, we change tack until we're on the right course.

blue ventures

beyond conservation

IN PARTNERSHIP WITH



COPEFRITO



For further information or to discuss partnership opportunities please contact:



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Winner, Buckminster Fuller Challenge, 2011
For work to protect marine resources and improve the livelihoods of poor coastal communities in Madagascar.



Observer Ethical Awards, runner-up 2010.
Blue Ventures was commended for creating the Indian Ocean's first replicable blueprint for community-centred marine and coastal conservation planning.



Condé Nast Traveler Environmental Award, 2009
For two decades, Condé Nast Traveler has been honouring environmental visionaries around the world who have found innovative solutions to seemingly intractable problems.



Responsible Tourism Awards 2004: highly commended for "Best in a Marine Environment"



Responsible Tourism Awards 2006: highly commended for "Best Volunteering Organisation"



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Responsible Tourism Awards 2009: highly commended for "Best in a marine environment"



Responsible Tourism Awards 2010: Winner for "Best volunteering organisation"



Ashoka & National Geographic Geotourism Challenge 2008: finalist



Changemakers & National Geographic Geotourism Challenge 2010: finalist



United Nations SEED Award 2005: winner, "Madagascar's first experimental community-run MPA"



Enterprise Young Brits Awards 2006: highly commended, "Social and Environment"



United Nations Development Programme Equator Prize 2006: the Village of Andavadoaka, winner (in partnership)



Skal Ecotourism Awards 2006: Winner, "General Countryside"