KM 4 CTI Learning Notes
2011-6

ADB Regional Technical Assistance (RETA) 7307:
Regional Cooperation on Knowledge Management, Policy, and Institutional Support to the Coral Triangle Initiative

PES 101. The Blue Economies of the CTI: Gearing for Rio+20

PES Learning Notes #4. October 2011

Travis Bover[1], Candice Mohan[2] and Annabelle Cruz-Trinidad[3]

Origin of the Blue Economy concept

The United Nations Conference on Sustainable Development, or "Rio+20", will take place in Rio de Janeiro, Brazil on 4-6 June 2012. The conference will mark the 20th anniversary of the 1992 Conference on Environment and Development (the Earth Summit) and the 10th anniversary of the 2002 World Summit on Sustainable Development in Johannesburg. Rio+20 presents an opportunity to redirect and re-energize political commitment to sustainable development.

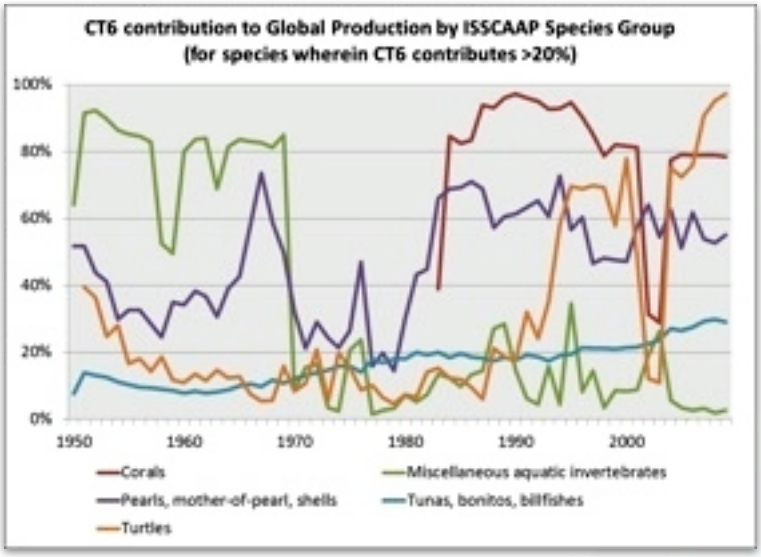

Figure 1. Contribution of CT6 to global production of selected fisheries commodities (developed by R. Geronimo for the ADB KM E-FACT Study). Source of Basic Data: FAO, various years

The concept of a "blue economy" derives from the formal Rio+20 theme of "green economy in the context of sustainable development and poverty eradication." While there are no formal definitions of blue and green economy, the green economy theme is generally understood to be about the intersections between environment and economy[4] - that is, the way in which the social, economic, and ecological dimensions of sustainable development can be better integrated.

"Blue economy" is intended to refer to oceans-related aspects of this, and was originally espoused by the Pacific island countries, which recognize the infinite connection between ocean health and the resources that support food security, livelihoods, and external trade. These connections are particularly strong in the Coral Triangle region, and the Coral Triangle Initiative (CTI) provides a practical framework through which to advance tangible action towards achieving a blue economy.

---

[1] Director, Marine Policy Development, Marine Division, Australian Government Department of Sustainability, Environment, Water, Population and Communities

[2] Assistant Director, Marine Policy Development, Marine Division, Australian Government Department of Sustainability, Environment, Water, Population and Communities

[3] Environmental Economist and PES Specialist/Team Leader, ADB Knowledge Management Project

[4] See the official Rio+20 website - http://www.uncsd2012.org/rio20/index.php?menu=62

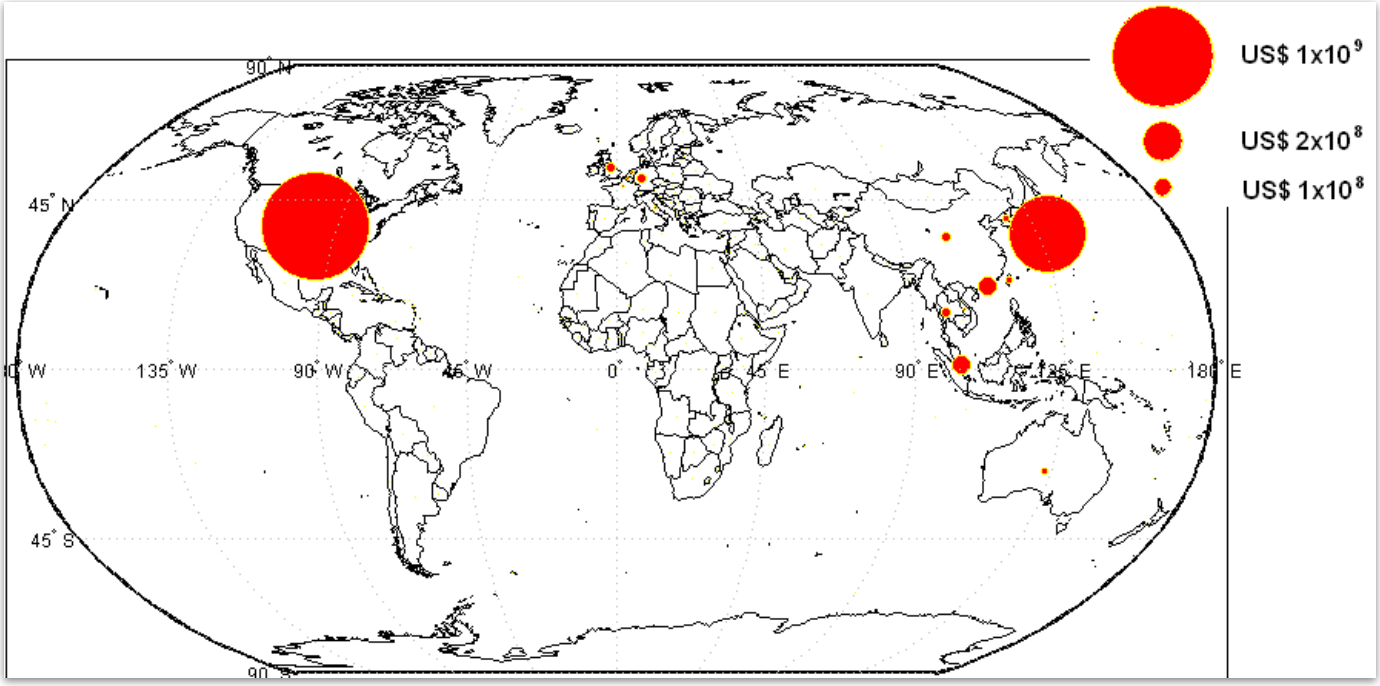

Figure 2. Export of CT6 Year 2009. Direction and volume of trade of fish and other aquatic products from the Coral Triangle (e.g. Crustaceans, mollusks, and other aquatic animals but excludes aquatic mammals, crocodiles, caimans, alligators and aquatic plants). Based on initial analysis of Reniel Cabral under the ADB KM E-FACT Study. Source of Basic Data (FAO, various years)

Economic benefits derived from the Coral Triangle

The marine and coastal resources of the CT region provide significant actual and potential economic benefits to the over 360 million people in the region, and many more beyond the region. For example:

- More than 120 million people in the region depend directly on marine resources for income, livelihoods, and food. Fish and seafood provide an average of 36% of dietary animal.
- Coral reef-related fisheries in the Philippines and Indonesia alone are valued at around US$2.2 billion per year.
- Live reef food fish from the Coral Triangle and elsewhere generate over US$800 million in annual trade, and the aquarium trade over US$100 million.
- Reef-based tourism in the Philippines and Indonesia alone is valued at around US$258 million per year. Estimates of the potential annual net economic benefit per square kilometer of healthy coral reefs with tourism potential range from US$23,000 to US$270,000.

As a region, the CT6 contributes more than 80% of global production in corals and other invertebrates and more than 20% in production of tunas, bonitos, and billfishes (Fig. 1). The largest trading partners of the CTI are the US and Japan (Fig. 2).

Despite these significant actual and potential values, the coral reef ecosystems of the Coral Triangle are among the most threatened in the world. About 95% are at risk from local threats, with almost half in high and very high threat categories. Overfishing has affected almost every reef in the region, destructive fishing practices are common, land-based pollution is significant, and coastal development is a growing threat.

The future threats from climate change and ocean acidification will compound these problems. By 2030, 99% of reefs in Southeast Asia will be threatened, with the vast majority (more than 80%) at high, very high, or critical levels. By 2050, all reefs will be threatened, with about 95 % at the highest levels.[5] Much of the above values will be lost should these risks eventuate.

[5] Burke, L., K. Reytar, C. Wilkinson, and A. Perry. 2011. Reefs at Risk Revisited. World Resources Institute. Washington, D.C.

Transforming oceans management through the Blue Economy and people-centered biodiversity conservation

A review of international commitments related to the oceans suggests that the key gap is not so much in identifying what needs to be done, but in identifying how those things can be done. Existing international commitments are comprehensive, but suffer from significant implementation gaps. These include the Johannesburg Plan of Implementation commitments to:

- Apply integrated ecosystem approaches to oceans management;
- Establish representative networks of marine protected areas including on the high seas;
- Eliminate subsidies that contribute to overfishing and illegal, unreported, and unregulated (IUU) fishing;
- Maintain or restore fisheries stocks to levels that produce the maximum sustainable yield (MSY);
- Eliminate destructive fishing practices; and
- Better manage land-based impacts on the marine environment.

There are also a range of new and growing challenges for the oceans, including marine debris from land- and sea-based sources, ocean acidification, ocean noise, and increasing uses of the oceans such as bio-prospecting and seabed mining. These add further emphasis to the importance of previous commitments.

While the understanding of the need to do something may be increasing, tangible results or even small steps appear few and far between. Perhaps the inability to amass support to face the threats head-on comes from the fact that in the ocean environment, the credo of "think globally, act locally," which has benefited sustainable development, is difficult to apply.

At the most basic level, the continued gap in implementation and the decline in marine ecosystems arise because economies, industries, communities, and livelihoods are structured around and, in many cases, dependent on, unsustainable approaches to the use of marine resources. As well as driving decline, this serves as a barrier to change. Unless this underlying challenge is addressed, progress is likely to be incremental at best and unlikely to arrest the continued decline.

The Coral Triangle Initiative provides a practical framework to advance tangible action towards achieving a blue economy.

The solution lies in finding ways to transform approaches to oceans management. Ecosystem considerations need to be integrated into economic and social decisions, rather than being separate and often competing matters. The objective should be to derive economic and social benefits from the oceans in ways that are efficient, equitable, and sustainable in both the short and long term.

One potential way to achieve the transformation to a Blue Economy is through a "people-centered approach to biodiversity conservation" – that is, a focus on finding "win-win solutions" that address development needs and aspirations, while conserving the ecosystems that provide the food, livelihoods, and income. In general terms, this can be progressed by:

- A better understanding and valuation of marine ecosystems;
- More effective linkages between the marine ecosystem management and food security, sustainable livelihood, and economic and social development strategies; and
- Transitioning economies, markets, industries, and communities towards more sustainable patterns of resource use over time, while respecting and supporting development needs and aspirations in both the short and long term.

Links between valuation and the blue economy

Better appreciation of the values of marine ecosystems is one focus area of ADB's Knowledge Management (KM) Project (TA 7307-REG). A Learning Note[6] prepared for the Solomon Islands' recent Governors Roundtable Meeting in September 2011 stresses the value of indirect and non-use benefits from coral reefs as far exceeding the direct use values. Oftentimes, what gets more attention in attributing values are the direct uses of corals

[6] Cruz-Trinidad, A. and R. Geronimo. 2011. "Valuing Coral Reefs: Seeing Beyond the Obvious." A Learning Note prepared under the ADB Knowledge Management Project (TA 7307-REG) for the First Premiers' Roundtable held in Gizo, Solomon Islands on 12-16 September 2011.

Coral gardens in the Solomon Islands. Reef-based tourism in the Philippines and Indonesia alone is valued at around US$258 million per year. (Credit: Jamie Oliver)

and coral reefs (both passive or extractive) without due consideration for ecosystem services, such as coastal protection, replenishment of sand, build-up of land, and supporting the growth of associated ecosystems such as mangroves and seagrass beds.

Moving into a blue economy framework will certainly benefit from existing knowledge on the values of marine ecosystems and the notion that not everything that is currently valued is tangible. The literature is rich in these topics, and the ADB KM Project is tasked to package and transmit this knowledge to the policymakers of the CTI.

Showcasing the CTI at Rio+20

As a significant leaders' level global event, Rio+20 provides a key opportunity to showcase the CTI-CFF, celebrate its achievements, generate renewed momentum, and attract new support. The Blue Economy will be a focus of discussions, and the CTI-CFF is well-positioned to present itself as a leading example of how a Blue Economy can be achieved.

To do this effectively, Coral Triangle leaders will need to focus on some key messages and areas where they can point to tangible achievements and actions underway. Some key themes that the Coral Triangle countries may wish to focus on in showcasing the CTI at Rio+20 include:

- **Making the links between biodiversity and poverty reduction,** including a better understanding of the actual and potential values of marine ecosystems in the Coral Triangle and supporting the development of sustainable livelihoods, industries, and markets;
- **Generating partnerships for action,** including increasing private sector engagement and improving donor support and coordination through the development of a financial resources strategy and a high-level donor roundtable;
- **Science and spatial planning for improved management,** including ongoing work to establish a Coral Triangle marine protected area (MPA) network, development of a Coral Triangle Atlas and State of the Coral Triangle Report (SCTR), and initiation of work under the RPOA seascapes goal; and
- **Responding to climate change,** including work to implement the Early Action Plan for Climate Change Adaptation.

There is expected to be an Oceans Day side event either before or after the main Rio+20 Conference. This would provide a good opportunity for the Coral Triangle countries to showcase the CTI, should they choose to do so. The Coral Triangle countries may also wish to adopt consistent messages in their national contributions to Rio+20 discussions.

Address questions to:

MS. ANNABELLE C. TRINIDAD
RETA Team Leader, PRIMEX
km4cti@gmail.com

RETA 7307 supports ongoing CTI efforts via knowledge management in the preparation of a State of the Coral Triangle Report, sustainable financing, and environmental economics and payment of environmental services for the CTI.
http://www.coraltriangleinitiative.net/