

A Million Cans of Tuna a Day: Where next for Seychelles' 'Blue Economy'?

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The figures are impressive. Port Victoria, in Seychelles, hosts one of the largest tuna canneries in the world, employing 2,300 people and producing more than a million cans of tuna each day (Amla, 2014). Recently enhanced by an additional 425-metre industrial tuna quay (Mahe Shipping Company, 2019), the port now lands, processes, exports or tranships record numbers of tuna. Unsurprisingly, the Indian Ocean Tuna Commission (IOTC) has sounded the alarm bell (IOTC, 2020). The IOTC, an intergovernmental organisation responsible for the management of tuna in the Indian Ocean, in its recent assessment of yellowfin tuna stock (IOTC, 2020) pointed to significant declines as a result of overfishing and relatively low reproduction levels (Marine Stewardship Council, 2016). Concurrently, international businesses have joined the World Wildlife Fund (WWF) to call for stricter regulation of Indian Ocean tuna fishing and demanded a 20% reduction in yellowfin catch (Undercurrent News, 2016). If no action is taken, the WWF warn, yellowfin tuna stocks are in danger of collapsing (WWF, 2016).

The picture painted of overfishing and declining fish stocks in the Indian Ocean, juxtaposed by expanding fishing port development in Seychelles, demonstrates the complex and seemingly conflicted nature of 'blue growth'. According to the FAO (2014), 'blue growth' seeks to:

... further harness the potential of oceans, seas and coasts, in order to (i) eliminate harmful fishing practices and overfishing, (ii) ensure tailor-made measures that foster cooperation between countries, and (iii) act as a catalyst for policy development, investment and innovation in support of food security, poverty reduction, and the sustainable management of aquatic resources.

The FAO launched their 'Blue Growth Initiative' as part of a global response to the idea of the 'Blue Economy' (BE), a concept which first entered public discourse during the Rio+20 Conference in 2012. The BE concept emphasizes conservation and sustainable management, based on the premise that 'healthy ocean ecosystems are more productive and a must for sustainable ocean-based economies' (FAO, 2014).

Gunter Pauli, widely recognised for coining the BE term, explains that it is primarily about creating new business opportunities that not only enhance the natural environment but also bring social and economic benefits to local communities (Pauli, 2015). Global financiers and development agencies have jumped on the BE bandwagon, with the World Bank investing billions in its PROBLUE program (World Bank, 2020) and the

EU incorporating blue growth into its 2020 Strategy (EU, 2020). In Africa, the African Union has adopted its ‘2050 Africa Integrated Maritime Strategy’, recognising the need to develop a sustainable ‘blue economy initiative’ (AU, 2012). But while these global and regional institutions may have embraced the idea, it is Small Island Developing States (SIDS) who are being credited for pushing the blue economy to the top of the development agenda (GoS, 2018).

Seychelles, a micro-terrestrial SIDS in the western Indian Ocean, lays claim to the second largest Exclusive Economic Zone (EEZ) in Africa (Purvis, 2015 p.15), a vast 1.37 million square kilometres of ocean (see Figure 1 below). Like many SIDS, Seychelles’ huge ‘per capita ocean area’ offers the potential for environmentally sound, socially inclusive economic growth. Yet inclusive ownership of Seychelles’ blue ‘development space’ remains a challenge. In order to illustrate some of the social challenges of blue growth this paper first outlines Seychelles’ embracement of the BE narrative and then draws on two illuminative case studies, the development of Seychelles’ Marine Spatial Plan and the Baie Ternay coastal project on Mahe Island.

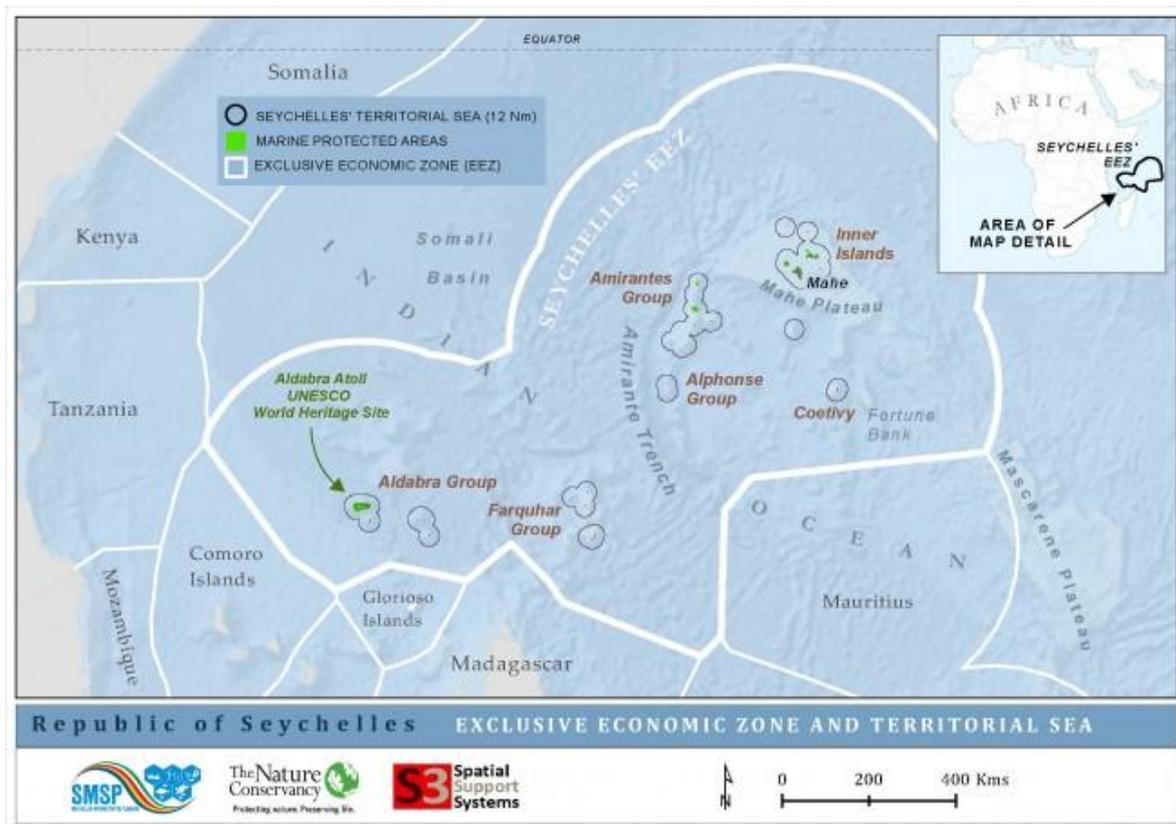


Figure 1. Seychelles Exclusive Economic Zone
Source: SMSP

Seychelles promotes the Blue Economy

The UN (2014) claimed that the ‘Blue Economy’ promises SIDS a development approach that is ‘better suited’ to their particular ‘circumstances, constraints and challenges’. Believing wholeheartedly in this narrative, the Seychelles Government has championed the BE concept both nationally and internationally. Following the Rio+20 Conference in 2012, the Government of Seychelles co-hosted the first ‘Blue Economy Summit’, together with the Government of the United Arab Emirates, during the Abu Dhabi Sustainability Week in January 2014. The then Seychelles President, James Michel, during his summit address, declared that Seychelles:

... need[ed] to ensure that the benefits from economic activity in our oceans translate into real benefits...We cannot consider that it is sustainable for certain large industrial fishing fleets to exploit the resources of one sea to the point of exhaustion and then simply move on to other areas. Inclusion, ownership and empowerment of coastal populations are core elements of implementing the Blue Economy.

(Michel, 2014)

A large Seychellois delegation also participated in BE debates during the United Nation’s Third International Conference on Small Island Developing States in September 2014, in Apia, Samoa. Following this, the Seychelles Government established the Blue Economy Department which has, with support from the Commonwealth, produced a national *Blue Economy Strategic Policy Framework and Roadmap* (GoS, 2018). Together, the Minister for Environment, Energy and Climate Change and the Minister for Finance, Trade, Investment and Economic Planning co-chair the Seychelles Conservation and Climate Adaptation Trust (SEYCCAT) Board, set up in 2015 as part of a \$21.4 million marine conservation and restoration debt swap initiative (Bonnelame, 2016). In partnership with The Nature Conservancy, a USA based agency, the Government of Seychelles has recently swapped some of its national debt for a commitment to enhance marine conservation. The Nature Conservancy, with the support of ‘Oceans 5’, an international collaborative of philanthropists that includes the Leonardo DiCaprio Foundation, provided a concessionary loan and grants to SEYCCAT in order to facilitate the debt-swap between Seychelles and their Paris Club creditors (LDF, 2017). Also known as the ‘debt-for-adaptation’ or ‘debt-for-nature’ swap, the agreement legally holds the Government of Seychelles to a commitment to protect 30% of its EEZ (Purvis, 2015 p.19)

With international private and philanthropic investment already secured for their marine-based debt swap, Seychelles is also keenly looking to trade their blue ecosystem ‘services’ and natural ‘capital’ through the sale of sovereign ‘Blue Bonds’ (World Bank, 2018). Blue Bonds replicate the Green Bond model that governments, development banks and corporations have used to fund projects with environmental and climate benefits (IUCN, 2016). The proceeds from selling Blue Bonds are earmarked for the Mahe Plateau fishery management plan (SFA, 2019a), with the Seychelles Government

expected to repay the bonds with revenue derived from the Mahe fishery after a period of time (IUCN, 2016).

To explore the potential of the Blue Economy for Seychelles and galvanise support from both national and international stakeholders, the Government of Seychelles convened a national forum on the Blue Economy in December 2014. The Forum commenced with an overview of Seychelles' BE achievements. In the fisheries sector it was noted that Port Victoria, 'one of the deepest and safest ports in the Indian Ocean', since it lies outside the cyclone belt, hosts the largest tuna canning factory in the region (Sinon, 2014). The Providence semi-industrial port had been improved, housing new processing plants to add value to the semi-industrial catch. Beyond fisheries, on-going offshore oil exploration, growth in the tourism sector, as well as extensive reclamation along the east coast of Mahe (for the expansion of Victoria and the seaport; installation of the international airport; construction of the Roche Caiman, Perseverance and Eden Island Housing projects - see Figure 2 below; and provision of the Providence Industrial Zone), were offered as evidence of Seychelles' BE 'success' story' (Sinon, 2014).



Figure 2. Eden Island Development (reclaimed land)
Source: Google Maps

Apart from extolling the virtues of the BE, the 2014 forum also represented a first step towards inclusion of local stakeholders involved in Indian Ocean-based activities. Representatives from local and international fishing, shipping, maritime transport, tourism, energy, conservation, pharmaceutical, cosmetic and genetic resource industries were present at the forum and they raised many pertinent issues. Purvis (2015, p.18), in her forum report, recounted some of these issues, as follows:

- i. the importance of knowing what constitutes marine ecosystems so that Seychellois may make better use of, and protect, them;
- ii. the need to devise an operational definition of what is meant by the Blue Economy concept for Seychelles;
- iii. the need to develop a framework for sourcing and using funds judiciously;
- iv. exploration of opportunities for maximising the value of existing Indian Ocean-based products;
- v. the importance of developing technical and professional capacities in maritime and related fields so that more Seychellois may benefit;
- vi. the adoption of an inclusive approach for Seychellois entrepreneurs and professionals to participate in the development of the Blue Economy;
- vii. the importance of continued consultation and involvement of Seychellois entrepreneurs and professionals, as well as local communities, in Blue Economy strategic development and implementation processes; and
- viii. the need for a strong governance mechanism that acts as the driving force for the BE, backed by adequate funding.

The issues raised by stakeholders at the 2014 forum require further debate and scrutiny. Task groups have convened to scrutinize certain government policies and plans, with stakeholder meetings held, for example, to discuss the ambitious Seychelles' Mariculture Master Plan (SFA, 2019b). Keen to promote the future potential of aquaculture and mariculture, the government's plan promises an additional 50,000 tonnes of fish production per annum, earning an estimated export revenue of US\$250million, with the creation of 2,000 jobs (Sinon, 2014). While this paper does not have the space to explore the socio-economic and environmental complexities of implementing the Mariculture Plan, one of the preparatory procedures for this and other Blue Economy initiatives, the Seychelles Maritime Spatial Plan (SMSP), is presented as a case study.

Seychelles Maritime Spatial Plan (SMSP)

With assistance from The Nature Conservancy and other international partners, including the UNDP-GEF, the Government of Seychelles has billed its SMSP as an essential and innovative way for Seychelles to better manage its oceanic and coastal assets (Purvis, 2015 p.19) and to avoid conflicted use of maritime space and resources (Sinon, 2014). As the first of two short case studies illustrating the socio-political complexities of blue growth, the development of the SMSP encapsulates the intricacies of defining where and when ocean-based activities can occur. Devising a national MSP requires the demarcation of marine activities and involves 'analyzing and allocating the spatial and temporal distribution of human activities in marine areas' (Ehler and

Douve, 2009). In general, an MSP specifies areas where certain activities are prohibited and designates areas for specific use, such as industrial or artisanal fishing, shipping lanes, military operations, mineral extraction, wind farms, waste disposal or marine protected areas (Ehler, 2015).

A relatively new phenomenon, the number of approved national MSPs grew from just one in 2000 (Australia) to thirteen in 2015 and are predicted to reach forty-four by 2021 (Ehler, 2015). In Seychelles, a series of stakeholder workshops was initiated in 2014 (Smith et al., 2018 p.39) where maritime zones were discussed based on national priority-areas (Smith et al., 2018 p.8). In order to satisfy the demands of the government’s ‘debt-for-climate-change-adaptation swap’ (ibid, p.4) Seychelles committed to securing 30% of its EEZ as a ‘marine protected area’. Phase 1 of the SMSP developed a coarse scale zoning design to protect 15% of Seychelles’ EEZ (consisting of 10% high biodiversity and 5% medium biodiversity areas). The SMSP Steering Committee secured Cabinet approval for Phase 1 of the plan in 2017, with Phase 2, designating the next 7.5%, completed in 2019 (see Figure 3 below). Phase 2 involved further consultation with stakeholders and more detailed data collection and scientific analysis in order to refine the zoning design. With the completion of Phase 2 a total of 26% of the Seychelles EEZ is now designated as a ‘marine protected area’, leaving only 4% to be designated, as part of the final 3rd Phase (Milestone 3 – see <https://seymsp.com/news/milestone-3-launch/>).

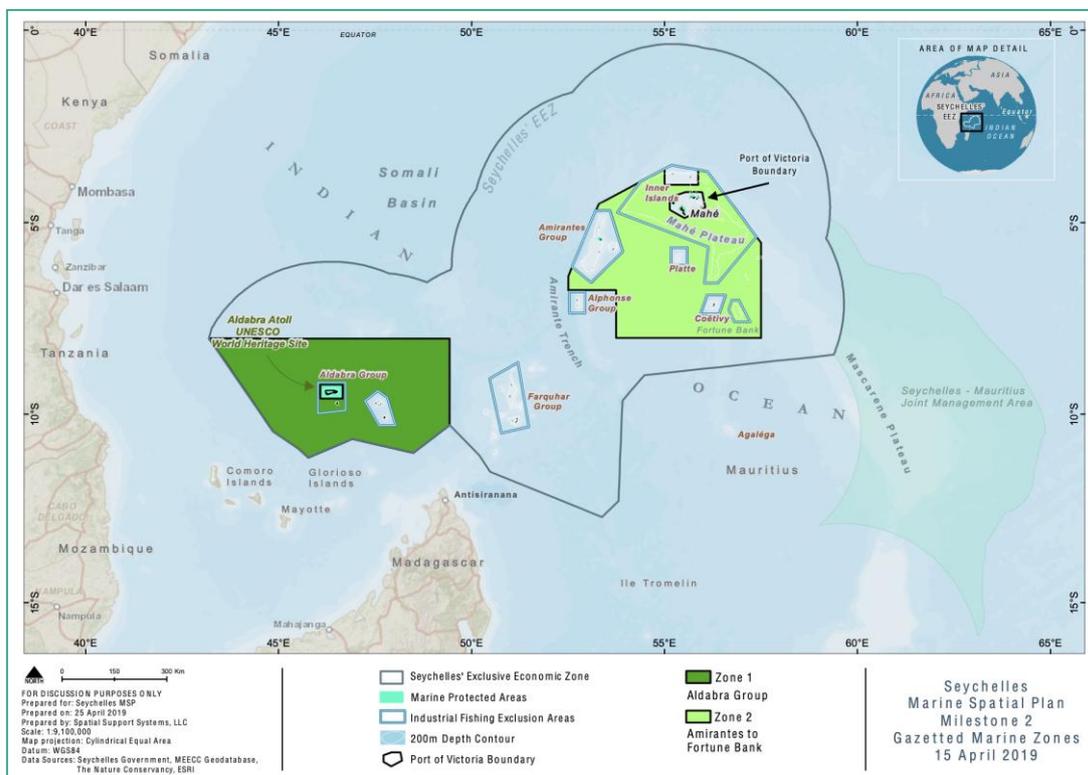


Figure 3. Milestone 2 Gazetted Marine Zones 2019

Source: SMSP https://seymsp.com/wp-content/uploads/2019/05/SEYMSP_Milestone_2_Gazetted_Marine_Zones_25April2019.pdf

Far from being seen as ‘empty’ or ‘placeless’ (Germond and Germond-Duret, 2016), Seychellois and their international partners view the EEZ as hotly contested and highly prized. As a consequence, delimiting 30% of the EEZ as a marine protected area has proved challenging, with many stakeholders concerned about the practicalities of designating certain areas as complete ‘no-take zones’. Initially 5 economic zones were proposed (Smith and Tingey, 2015) including a zone for ‘Biodiversity’ (which would be 30% of the EEZ). Zone A would have been for ‘Food Security and Fisheries’, Zone B – Biodiversity, Zone C – Industrial Use and Public Utilities, Zone D – Non-Renewable Resources (mineral extraction etc.), and Zone E – Tourism and Recreational activities. The Zones were subsequently revised (SMSP, 2017) to only three: Zone 1 – High Biodiversity Protection (15% of the EEZ), Zone 2 – Medium Biodiversity Protection and Sustainable Use (15% of the EEZ), Zone 3 – Multiple Use Zone (70% of the EEZ).

With Seychelles’ waters heavily exploited by the fishery and tourism industries, the demarcation of space for biodiversity protection has proved difficult. Wrangling over the designation of zonal activities has been intense, prompting the decision to simplify the zoning categories. In the multiple-use zones, Seychelles has just agreed (European Commission, 2019) for 40 tuna purse-seiners and 8 long-liners from the EU to continue fishing over the next 6 years. In return for extracting 50,000 tonnes of tuna per year, the EU will pay Seychelles €5,300,000 to secure exclusive rights to fish. As Seychelles juggles the demands of EU and local fishers, marine conservationists, tourist operators, as well as other stakeholders, the realisation of an effective SMSP may prove elusive.

Patrick Joseph, CEO of PetroSeychelles, told a Guardian reporter that ‘oil exploration is a dilemma for Seychelles, which could be sitting on ‘world-class’ reserves (Carrington, 2018). One potential oil reserve (the Wilkes seamount) lies in the Aldabra protection zone. Carrington (2018) also describes further challenges for the Seychelles marine spatial plan in the form of a ‘controversial new military base planned for the island of Assumption, about 20 miles from the Aldabra atoll, to be paid for by India’. A ‘well-informed source’, who asked for anonymity, told the Guardian reporter: ‘I am worried that it could damage the biodiversity of Aldabra. We are talking about big ships coming in to berth.’ Keith Andre, from the Fisherman and Boat Owners Association, added that ‘The Assumption saga will certainly test the credibility of the marine spatial plan process’ (Carrington, 2018). Andre also commented on the possibility of seismic surveys in the protected zone around Aldabra, saying ‘The nature and impacts of these activities contradicts the authenticity of the entire (marine spatial plan) process’ (Carrington, 2018).

Baie Ternay Alternative Development Project

While traditionally dependent on ‘blue’ industries, the need to balance the growing needs of both local and international stakeholders creates mounting pressure on Seychelles. This burden is not only illustrated by the tensions of devising and

implementing a workable SMSP but also, closer to shore, by the friction over coastal development. Local demands for social housing, infrastructure and employment have led to extensive coastal reclamation causing significant degradation of coastal wetland, beach and coral habitats. With over 50% of Seychelles land area protected as national park, social development is concentrated along narrow strips of coast. One area recently earmarked for an extensive hotel and marina complex is Baie Ternay, in northwest Mahe. Originally host to a large, state-run, boarding school (the Seychelles National Youth Service, now defunct), Baie Ternay remains a secluded bay (see Figure 4 below) boasting a variety of endemic and critically endangered flora and fauna. While ideal for tourists seeking a paradisiacal location, the hotel and marina plan (Figure 5 below) was thwarted by a group of local environmental scientists and activists mobilised through the Citizens Engagement Platform (CEPS).



Figure 4. Baie Ternay
Photo: C Mason-Parker



Figure 5. Emirates' Proposed Hotel and Marina Complex at Baie Ternay
Source: <http://www.civilsociety.sc/2015/01/the-campaign-project-for-cap-ternay/>

As a non-government organisation tasked with a broad mandate to advocate on behalf of civil society, CEPS co-ordinated the Baie Ternay Alternative Development Project (see Figure 6 below). In September 2015, CEPS invited an international consultant to help local stakeholders envision a new way forward for Baie Ternay (CEPS, 2015a). Working closely with a range of stakeholders, including the University of Seychelles, the National Parks Authority (SNPA), the Tourism Board (STB), the Ministry of Environment, and Global Vision International (GVI), a UK-based volunteering organisation that has established a conservation programme in the bay, the team from CEPS explored potential research, education and recreational opportunities.

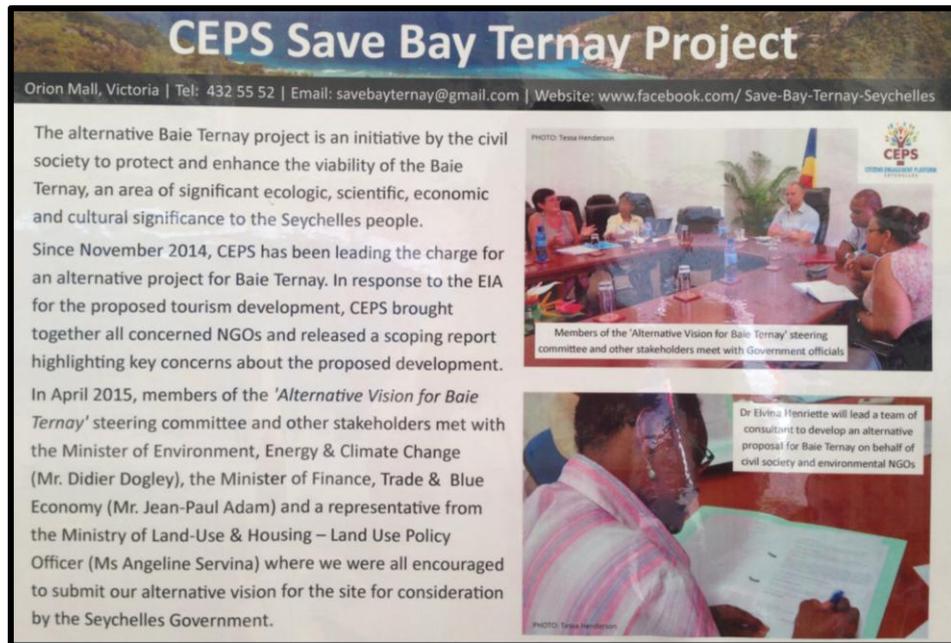


Figure 6. CEPS' Save Bay Ternay Project
Source: CEPS

The University of Seychelles' Blue Economy Research Institute (BERI), set up in response to the growing national interest in BE, was one of CEPS' key partners. BERI put forward its own proposals for Baie Ternay (see Figure 7 below), where it hoped to establish a world-class marine research and education centre in partnership with internationally reputable Blue Economy researchers.

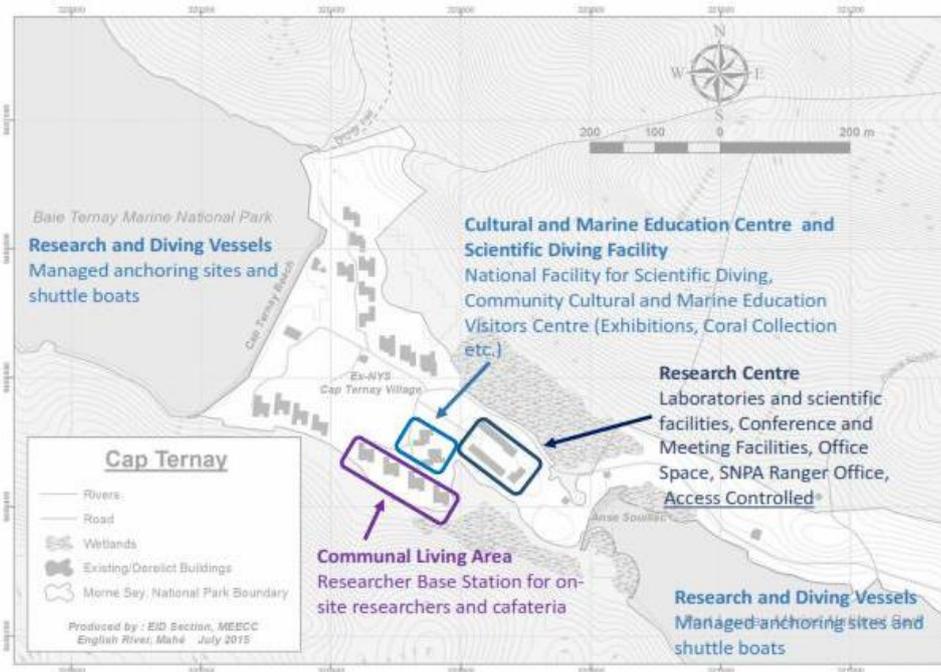


Figure 7. BERI's proposed Research Station at Baie (Cap) Ternay
Source: BERI, University of Seychelles

Other local stakeholders were keen to facilitate youth outreach programmes and encourage cultural and eco-friendly activities at Baie Ternay, which are summarised in the alternative plan – see Figure 8 below (CEPS, 2015b). The proposals from CEPS and BERI presented the government with a challenge. Financial support needed to be agreed, as did the issue of improving road access for construction, site management and security, as well as addressing the issue of the Emirates' lease status of the site (BERI, n.d.)

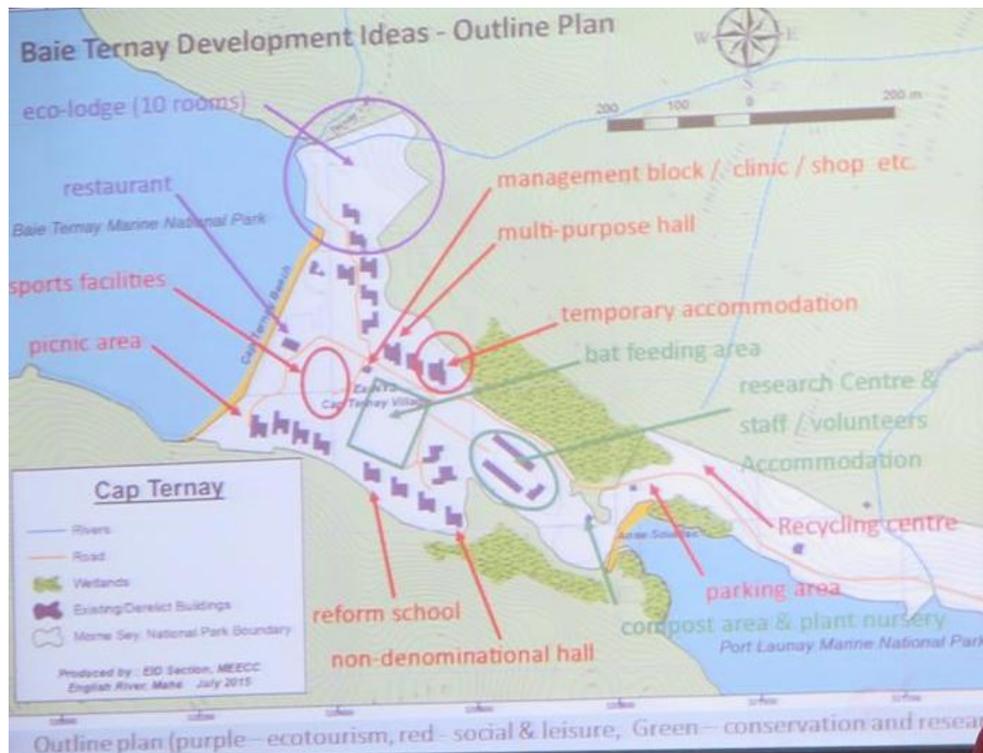


Figure 8 CEPS Workshop on Baie Ternay Alternative Development

Source: <http://www.civilsociety.sc/2015/09/positive-feedback-received-following-ledgards-visit/>

Those with an active interest in the Baie Ternay project had to wait a long time before the government decided on a partial way forward. Political instability, including a change of President and a new system of political co-habitation during the period 2015-2018, meant the Baie Ternay development project was essentially put on hold. In late 2018 President Danny Faure declared that the area would house a new rehabilitation centre – the ‘Youth Hope Centre’ (Laurence, 2018), whose building would be financed by the United Arab Emirates (State House, 2019). The Centre aims to help young people, aged 13 to 15, who ‘are drifting into anti-social activities’, explained Linda William-Melanie, the principal secretary of the Department of Social Affairs in the Ministry of Family Affairs (Laurence, 2018). With little progress made, however, it was announced in December 2019 that the rehabilitation centre ‘initially to be built at Cap Ternay, will now be built at Bon Espoir, Montagne Posee, at a cost of \$3.6 million’ (Karapetyan, 2019). It is unclear what activities will now be proposed for Baie Ternay, leaving everyone guessing as to what may happen at this important coastal site.

Both the Baie Ternay development and the SMSP are illustrative of the problematic nature of implementing BE initiatives. While both projects offer Seychellois certain benefits, the projects are also contentious and yet to be fully realised. Although certain strides have been made in terms of consolidating a narrative around the importance of the Blue Economy for Seychelles, the practicalities are less than straightforward. The risks of ocean grabbing by powerful partners such as the EU bloc of industrial fishers, and the risks of ocean and coastal privatisation by oil and gas companies or touristic and leisure businesses, are great. Many Seychellois remain dubious about where the proceeds

of blue growth may end up. Political uncertainty and significant levels of corruption and nepotism in the small island society mean that incomes earned from the BE may not be enjoyed by the majority of Seychellois.

Seychelles was quick to jump onto the BE bandwagon, with the ex-President James Michel publishing a book 'Rethinking the Oceans, Towards the Blue Economy' in 2016. Advocacy and promotion of the BE concept, at both national and international level, has created a climate of anticipation. To date, however, most BE activities are heavily reliant on both international expertise and imported labour (in tourism, fisheries, research etc.). Local artisanal fishers and small businesses feel threatened and some remain cynical about the widespread potential of the Blue Economy. With the nation's focus centred on ocean-based activities, foreign direct investment and development funds are being geared toward projects, such as the SMSP and the Mariculture Plan, that rely on large-scale funding and external expertise. The social and economic costs, including the dispossession of local fishers, loss of indigenous knowledge and reliance on imported skills, potentially challenge the sustainability of BE development in Seychelles.

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