



THE EAST ASIAN SEAS CONGRESS

25 Years of Partnerships for
Healthy Oceans, People and Economies
Moving as One with the Global Ocean Agenda

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TRACK 6: OCEAN INDUSTRY AND FINANCE

SESSION 6.2

Filling the Pipeline: A Sustainable Ocean Investment Ecosystem for the Seas of East Asia

CONVENER:



Partnerships in Environmental
Management for the Seas of
East Asia



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Track 6: Ocean Industry and Finance
“Filling the Pipeline: A Sustainable Ocean Investment Ecosystem for the Seas of East Asia”
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Convening Agency
Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

1. INTRODUCTION

- 1.1. The need for significantly increased investment to achieve the targets under the UN Sustainable Development Goals (SDGs) is well understood. UNDP cites a USD2.5 trillion gap in investments required to meet the SDGs, and it's not likely that all of this financing will come from government and donor support. By catalyzing private sector investment, there is an opportunity to redirect billions of dollars of capital away from unsustainable investment towards sustainable, blue economy investments in the region.
- 1.2. To address this need and opportunity, a number of new funds have emerged to focus on investing in sustainable development of oceans, in areas including fisheries, marine pollution and coastal tourism. However, funds face challenges in sourcing investment projects that can support the SDGs while offering viable investment models. Local governments look to engage in the investment conversation, but may not know where to start. At the same time, donor support has a role to play in developing new models and approaches that can lower risks and catalyze the flow of private capital to investments that can have an impact at the local level.
- 1.3. This session was designed to introduce the emerging investment ecosystem for the Seas of East Asia, including lessons learned for sourcing and developing investments that address critical ocean challenges, such as ocean plastics, wastewater, sustainable aquaculture, marine conservation, and more. Building on the regional Strategic Action Programme (SAP) coordinated by PEMSEA, which brings together donors, technical partners and the private sector, this new investment ecosystem can catalyze both public and private financing, building a pipeline of investment opportunities supporting SDG 14 and unlocking the ocean investment potential in region

2. THE GROWING OCEAN INVESTMENT ECOSYSTEM IN EAST ASIA

- 2.1. **Mr. Ryan Whisnant**, Director of Strategic Initiatives for PEMSEA opened the session by stating the main goals of the session—to highlight the work underway on emerging investment projects in the region and deepen the understanding of the interests of investors in blue economy investment opportunities.
- 2.2. The presentation provided background on PEMSEA’s work in recent years to cultivate a growing ocean investment ecosystem in the region, building on 25 years of donor support that contributed to: a) supporting regional scientific assessments; b) establishing regional institutional mechanisms, such as PEMSEA and c) developing regional Strategic Action Programmes, which for East Asia is called the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). These mechanisms have been recognized for their potential for reducing investment risks. Generally, the capital is available, but what is needed are pipelines of “bankable” projects that offer viable investment models with positive environmental and social impact.
- 2.3. PEMSEA’s work is grounded in the framework and approach of integrated coastal management (ICM). Through its programs in the region, PEMSEA generated a list of areas where investment potential can be assessed, across sectors including coastal transport, ecotourism, sustainable fisheries, renewable energy, pollution reduction and habitat protection, among others. ICM can inform and guide the approach to ensure that development of investments is done holistically and sustainably.
- 2.4. Investment can span a blend of loans, equity and grants from a variety of sources, including impact investment funds, private equity, debt funds and donors, for use as seed, growth and working capital, as well as capital purchases and project financing. There has been an emergence of several investment funds and facilities focused on ocean-related investments in the region to fill this gap.
- 2.5. PEMSEA can play a role in helping to address investors needs by leveraging its regional network to identify pipeline investment opportunities. It can help investors to understand local political context, identify opportunities for aggregation, assist with structuring and monitoring for sustainability and environmental and community benefits. Likewise, PEMSEA can assist local governments and other project proponents by identifying investible projects that address priority management concerns, assessing business and financial models and matching projects with a network of experts and investors.

3. BLUE ECONOMY INVESTMENT CASES FROM THE REGION

- 3.1. The first panel of speakers, moderated by **Ms. Bruce Dunn** from the Asian Development Bank, shared their experiences developing concrete investment cases across various sectors, including waste management and ocean plastics, wastewater as a resource, sustainable aquaculture and marine protection and tourism, along with some lessons learned for building a pipeline of investment opportunities.

- 3.2. **Mr. Rob Kaplan**, Founder and CEO of Circulate Capital, shared that plastic pollution results in an estimated USD13 billion in damage to marine ecosystems annually, with at least USD80 billion of packaging's value alone lost to the economy after a short first-use cycle. A 45% global reduction in plastic leakage to the ocean can be achieved by improving waste management and recycling in just five countries—India, Indonesia, Vietnam, Thailand and the Philippines.
- 3.3. Circulate Capital spent the last 18 months looking at the investment landscape in South and Southeast Asia. Billions of dollars of investment are needed, as much as USD10 billion in Southeast Asia alone. Investment is needed in the “missing middle” between today's pipeline and the capital we need to attract, supporting companies in the growth and expansion phases. Circulate Capital looks to remove funding as a barrier by developing evidence-based track records, pipelines of investable opportunities and the intermediated investment products necessary to provide an on-ramp for investment.
- 3.4. The Circulate Capital steering committee includes the Ocean Conservancy and PEMSEA, bringing valuable environmental conservation expertise and guidance, along with leading companies, such as Pepsico, Dow, Procter & Gamble, Danone, Unilever and Coca-Cola. These Companies committed the more than USD100M to incubate and invest in solutions in South and Southeast Asia. The model builds a bridge from philanthropic capital in early stages to catalytical capital in later stages. Projects that are not yet investible but still have potential to impact the system can receive philanthropic and public funds to build their capacity. An Incubator Network was launched by Circulate Capital and SecondMuse, along with with McKinsey.org and WeWorkLabs, to increase the quality and quantity of companies in the pipeline for investment.
- 3.5. Circulate Capital is actively sourcing projects and encouraging RFP submissions through its website. Mr. Kaplan shared illustrative examples of companies that require funding to change a system that currently mismanages plastic and other solid waste. While Circulate Capital is not currently working with these companies, they demonstrate the types of projects that are needed to convert waste into value. Circulate will be publishing an Investment Handbook before the end of the year.
- a) Tridi Oasis is a PET recycler outside of Jakarta that is majority women-owned. They have recycled PET plastic for some time and are interested in growing their product mix to sell into the recycled packaging market. This expansion requires capital and will result in expanding the area from which it sources its plastic.
 - b) In the Philippines, the City of Dagupan is developing a public-private partnership for waste-to-fuel technology. The agreement provides a 20-year concession from the LGU. The city generates 30 tons of waste every day and developed a technology for converting waste into diesel and biogas, which they use to run 3000 tricycles in the city.
 - c) In India, GEM specializes in collection and aggregation of packaging waste for PET recycling into yarn, which they promote through products like T-shirts and bags. Saahas Zero Waste partners with packaging companies through their Extended Producer Responsibility program to implement a reverse logistics mechanism that facilitates bringing back bulk volumes of waste into the recycling chain.

3.6. Circulate Capital offers a suite of solutions, addressing public policy, corporate commitment, financial incentives and changes in behavior. These are all needed for systems change. While there is no “silver bullet” that can solve all the issues, this suite of solutions can address some of the issues.

Discussion:

3.7. **Mr. Juergen Lorenz** with JBTC Manila reflected that Circulate Capital is looking for a solution from an investor’s point of view. An integrated solution is needed. We will not solve the ocean pollution problem by looking only at plastics. How do we address non-income generating issues and still provide an equitable return for investors?

Mr. Kaplan: I agree with the integrated approach, it is envisioned that Circulate Capital will invest in the whole value chain of integrated waste solutions.

Mr. Lorenz: In Europe, there are established companies that have technologies for recycling plastics for many years. In this region, however, the challenges can be the local political situation.

Mr. Kaplan: Policy is a big part of the implementation. One must also consider the feasibility of foreign technologies in the local context.

3.8. **Engr. Joma Lim**, Managing Director of LCI Envi Corporation presented “Opportunities for Wastewater and Resource Recovery in the Philippines, Vietnam, and Indonesia” on behalf of Dr. Ger Bergkamp of ARCOWA, an advisory firm based in Switzerland that offers a fresh approach to sustainable development strategies, solutions and investments for transitioning wastewater treatment into resource recovery facilities. PEMSEA partnered with ARCOWA to accelerate the investment in advanced wastewater treatment and resource recovery, addressing a number of wastewater related SDGs.

3.9. Wastewater from various domestic, industrial, commercial and agricultural sources continue to threaten the quality of marine and coastal waters posing severe environmental health concerns and loss of livelihood derived from various marine resources. Boracay Island in the Philippines offers a cautionary example, where nutrients from untreated and partially treated sewage caused eutrophic and hypoxic conditions. Addressing this challenge in the region will require the equivalent of additional wastewater treatment infrastructure for 500,000 people per day every day until 2030. Wastewater is also recognized as a significant source of GHG emissions, estimated at roughly 3% of the total globally, but there is opportunity. It’s possible to convert wastewater treatment facilities into resource factories, producing potable water, energy from biogas, fertilizers and even bio-polymers.

3.10. Some of the most common drivers identified in the region include water scarcity; stricter standards and regulations, particularly for nutrient treatment; and high energy costs for treatment and disposal of wastewater sludge and excess solids. Technologies are now commercially available to meet higher water quality requirements, with a growing public acceptance of water reuse.

- 3.11. Focusing on Indonesia, the Philippines and Vietnam, the project included country-level diagnostics for wastewater and resource recovery, long-list scoping of potential opportunities and initial development of pre-feasibility studies.
- 3.12. Sample case studies uncovered through the assessment included Del Monte Philippines in Cagayan de Oro, where a waste-to-energy combined heat and power project from treated wastewater from pineapple production powers the operations of the cannery and plant, saving Del Monte 25% in annual power consumption and 9% in annual fuel costs, as well as reducing waste and carbon emissions. Phu My Hung, a new high-quality urban development in Ho Chi Minh City, Vietnam uses a separate sewerage system connecting over 90 percent of the households. The treated wastewater is reused to irrigate green spaces and landscaping, and the sludge is used to fertilize green areas. A third example, PT AANE located in East Belitung, Indonesia, utilizes the POME from its palm oil mill to produce 1.8MW of energy, supplying 2,000 households with electricity through a long-term power purchase agreement with the State Electricity Company.
- 3.13. The ARCOWA project produced a pre-feasibility case study for an industrial zone in the Philippines (the exact site could not be disclosed). The drivers identified in the case were non-compliance with new wastewater effluent standards, potential for water re-use given scarcity of water supply, and potential expansion of activities in the industrial zone while minimizing the carbon footprint of the facility and opening up land area for alternative use. Preliminary technical and financial analysis was conducted, looking at five different technology options, considering the CAPEX and OPEX. It was concluded that chemical phosphorus removal provided the best return on investment.
- 3.14. Overall conclusions from the project were that the technology is available and ready to be applied, but costs vs. returns must be carefully analyzed and success requires top management willingness to incorporate new technologies. Overall recommendations are to focus efforts on specific industries and larger urban areas, invest in (pre-)feasibility studies and development of portfolio and better engage the private sector by addressing needs for tariff reviews, new PPP models and new financing vehicles.

Discussion:

- 3.15. **Ms. Annadel Cabanban** of Wetlands International brought up the emerging issue in the marine environment of hormones from the production of livestock. Is there any facility or technology that can be applied now in extracting the hormones that impact the coastal ecosystems?

Eng. Lim: I've heard of research on endocrine disruptors. I don't think the technology that I presented will be able to address such issue since what we have looked into was technology for the extraction of nutrients present in the sewage as a potential resource.

- 3.16. **Mr. Rene Benguerel**, Founder and Managing Director, Blueyou Consulting presented on "Aquaculture Investment Opportunities in South East Asia: Sustainable Grouper Farming in the Philippines". Mr.

Benguereel introduced Blueyou as a private sector group of companies that has engaged the fisheries and aquaculture sectors on transition towards sustainability for over 20 years. The company is active in services, manufacturing, trading and distribution of seafood, partnering with Non-Governmental Organizations (NGO)s on private-sector-led programs and projects in SE Asia and Latin America. Impact blue, on the other hand, is a consortium program created two years ago specifically to address development of a pipeline of investments for sustainable fisheries and aquaculture. It designs holistic fisheries transition models for return-seeking capital and focuses on community-based businesses with a strong livelihood component. It is important to find the right balance between the expected return for investors and the environmental and social impact desired.

- 3.17. The seafood industry is the only food sector that still depends on wild resources, while global stock levels are threatened by overexploitation, illegal fishing and ineffective management. There is huge potential to do better, where currently every third fish does not reach the consumer. Global fishery reform has an upside of USD90 billion annually. At the same time, aquaculture offers more resource-efficiency than land-based protein production. Asia is a global hot-spot for seafood production, both fisheries and aquaculture, and marine resources are mostly overexploited and remain at critical levels. Aquaculture has been the biggest engine for expansion of production and increasing demand for protein will further drive demand for seafood. Healthy coasts and oceans are vital for the future viability of SE Asia's seafood sector. In SE Asia, there is a potential USD30-40 billion that can be recovered from fixing supply chains.
- 3.18. Investment must be considered across the three dimensions of Environment, Economic and Social, where important criteria include impacts on the environment, potential for mitigation, bio-security risk, investor return, operational risks, market and value chain potential, food safety risk, livelihood and community benefits.
- 3.19. Impact blue developed an investment case focused aquaculture since ownership of the asset is clear compared to fisheries. The case was developed around grouper, which is culturally important and in high demand in Asia. For grouper, wild capture origins are overfished and existing grouper farms have sustainability challenges, including sourcing juveniles from the wild. There is also an increasing market demand for certified sustainable seafood. The business cases proposes a vertically integrated grouper farm with hatchery and nursery, where the design, set-up and operation of the farm is in line with strict, third-party environmental standards and good aquaculture practices. The business would have direct distribution to strategic clients in the gastronomy sector in Metro Manila, Hong Kong and Singapore. The operation would focus on Green grouper, with a total production capacity of 250 – 300 MT annually, and would be compliant with the forthcoming Aquaculture Stewardship Council finfish standard. The total investment amount in the project would be roughly USD4M, generating annual sales turnover of USD 2.2 – 2.5M, with a gross margin of 50%, EBITDA of 35% and a 10-year IRR of 17.4%.
- 3.20. In terms of environmental impact, the hatchery-based operation would eliminate the need for wild capture of juveniles, minimize pollution and utilize sustainable feed, follow biosecurity protocols and follow good aquaculture practices. The business would provide employment for around 50 people and

sustained economic activity in the community, with the potential for scaling-up to additional communities and supplying fingerlings for community-based fish farming grow-out models.

- 3.21. The overall conclusions were that proper spatial planning is essential for future growth of the aquaculture sector; bio-security protocols for disease mitigation must be properly implemented; sustainable feed ingredients are crucial; and non-feed-based systems and species have lowest impact

Discussion:

- 3.22. The moderator, **Mr. Bruce Dunn** from the Asian Development Bank asked a question about the focus on the higher-end gastronomy market versus the impact of focusing on more widely consumed species from a food security perspective.

Mr. Benguerel: In developing countries like the Philippines, we have a specific model for high value species. There are also lots of activities that focus on lower value species, like milkfish, which from the sustainability point of view is easy to farm because it does not require a lot of feed as they generally feed on algae or plankton in the water. This case focused on providing a model that can impact the unsustainable grouper trade, which requires a focus on higher-end markets. There are, however, other opportunities that can focus on lower value species, which are essential for food security.

Mr. Toto Camba from Capital 4 Development asked about the choice of the Philippines for such a project. What are the key risks that you have seen in terms of implementing this model? The Philippines is visited by around 25 typhoons every year, how would you be able to manage this particular risk?

Mr. Benguerel: In the Philippines, typhoons have been an ongoing risk for the aquaculture industry. It is riskier to invest in aquaculture in the Philippines compared to other places like Vietnam and Indonesia because of the typhoons. The model that we are developing is based on site selection procedures, where we see to it that farms are placed outside the usual typhoon belt and the equipment is designed to withstand strong waves and wind.

- 3.23. **Mr. Alain Maulion**, Senior Policy Expert for Blue finance presented on “Impact Investment in Marine Protected Areas” on behalf of Nicolas Pascal, Executive Director of Blue finance. Mr. Maulion began by providing a short introduction about Blue finance, whose mission is to ensure efficient management and sustainable financing of Marine Protected Areas (MPAs) through a diversified portfolio of investments in MPAs. The portfolio focuses on structured investments in coral reef conservation, livelihood improvements and climate change resilience for coastal communities in the Caribbean and SE Asia, contributing to SDGs 1, 5, 8, 13 and 14. The investments are structured as senior eight-year loans with quasi-equity, where the revenue is generated from statutory visitor fees and innovative tourism activities.

- 3.24. Within the impact investment value chain, Blue finance focuses on investment screening, due diligence, investment and management, responding to impact investor needs in terms of size, risk profile and impact measurements. Agreements are structured between government and local NGOs to co-manage

MPAs, where there is no increase in public debt, no on-public budget allocation, no transfer of property and the government maintains its core functions. Initial funding comes from impact investors. Such co-management approaches have proven to be an effective solution in many countries.

- 3.25. Blue finance is an NGO acting under the institutional umbrella of United Nations Environment, partnering with PEMSEA in SE Asia, among other partners. Its team includes partners with experience in community development, fishery management, marine ecology, conservation finance, public-private partnerships and business planning. Blue finance is developing new PPPs in four Caribbean countries and three countries in SE Asia—Cambodia, Indonesia and the Philippines.
- 3.26. The expected impact of the projects includes 8,100 km² of coral reef and 86 threatened marine species protected, and around 24,000 households benefiting through efficient management and sustainable financing of MPAs. Other benefits include food and income for local communities, opportunities for tourism businesses and protection from coastal erosion. One MPA project in the Dominican Republic, covering more than 8000 km² of coastal ecosystems, is expected to benefit 16,000 households through a USD2.5M investment for co-management of the Marine Sanctuary. Other similar projects are in progress in the Bahamas, Antigua & Barbuda, Barbados and St. Kitts & Nevis.
- 3.27. In the Philippines, development of a co-management approach to the MPA network in North Oriental Mindoro is in progress, covering 450 km² of coastal ecosystems and coral reef and is expected to benefit 35,000 households through an investment of USD1.5M. The investment involves a senior, asset-backed loan to a non-profit foundation in charge of the co-management of the MPA network. The loan has an 8-year term with no collateral guarantee required from foundation members or the government. The investment is expected to generate revenue of more than USD1M annually from visitor fees and sustainable tourism activities.

Discussion:

- 3.28. **Ms. Maeve Nightingale** from IUCN Asia emphasized the imperative to measure the environmental and social impacts from such investments. Is there an easy way to monitor the indicators of social change or impacts? There are a lot of discussions on equity sharing, but how do you monitor and measure social impacts? You can share any ideas or guidelines.

Mr. Maulion: We try to address economic, social and environmental issues, including raising the standard of living of communities in coastal community families. Through our process, we have stakeholder participation from the planning to implementation to monitoring stages. For income in particular, the beneficiary partners in the communities are monitored and evaluated through a participatory monitoring and evaluation approach. Through this, we are able to measure the impacts or outcomes of projects with sustainable livelihood as a component.

Mr. Kaplan: On the waste and recycling side there is no simple way to do monitoring and evaluation. There are models used in Latin America, but they are very complex, similar to Asia, where data is very

hard to gather. There is a big software opportunity to improve data gathering, for example in the informal sector.

Mr. Jürgen Zeitlberger, Manager Blue Natural Capital Financing Facility added that IUCN has a positive impact framework with a catalog of environmental and business indicators.

4. INVESTOR PERSPECTIVES ON THE OCEAN INVESTMENT OPPORTUNITY

- 4.1. The second panel, moderated by **Mr. David Pangan**, Investment Specialist for PEMSEA, featured representatives of global and regional investors, including funds and facilities focused on oceans. The speakers shared their perspectives on the ocean investment opportunity in the region, their role in supporting healthy coastal ecosystems and communities, and gaps that need to be addressed to catalyze more sustainable investment in coasts and oceans.
- 4.2. The first speaker, **Mr. Dale Galvin**, Managing Partner of the Meloy Fund, presented on “The Opportunity for Ocean Investment: The Meloy Fund”. Mr. Galvin started his presentation by discussing the problems with coastal fisheries. More than a billion of the world’s most climate vulnerable people depend on coastal fisheries for their main source of animal protein. These fisheries provide half of the world’s fish catch and 80-90% of employment in the fisheries sector. They are caught in a cycle of overfished stocks, which lead to fishers catching fewer, smaller, lower quality fish, leading to a decrease in catch per unit effort (CPUE) and fisher earnings. This results in even more fishing pressure to make up for lower CPUE and lower prices, which even further depletes fish stocks.
- 4.3. RARE’s approach aims to inspire conservation for people and nature through behavioral insights, replicable bright spots and financing scale. RARE works to raise awareness and engage communities in conservation ethics. Research has shown that in RARE’s first 41 sites that are part of the Fish Forever program, target fish biomass has increased by 111% outside designated reserves and 390% inside the reserves. But to make such approaches scale, more investment is needed. In the Philippines alone, 850 coastal municipalities will require at least USD1 billion over 15 years to achieve sustainable coastal fisheries management.
- 4.4. Small-scale fisheries face both governance and economic challenges, including fragmented, inefficient, and low-integrity supply chains; lack of quality products; high levels of spoilage and unused by-products; over-reliance on a few species; outdated or absent infrastructure; and limited access to capital. In this J-curve scenario, you have to fish less and suffer in the short term for the longer-term benefits, but how do you pay for it? Fishers need to be able to feed their families. It’s not just about levels of income, they need stability of income. The Meloy Fund was established to help fill this gap. It focuses on the Philippines and Indonesia, which together represent 4.3 million small scale fishermen, 2.7 million tons of fish, 21 million hectares of critical marine habitat and USD4 billion in latent value in small scale fisheries.

- 4.5. The Meloy Fund focuses on financial incentives for behavior change, financial resilience against future shocks, sustainability of impacts and proof of commercial viability to capital markets, in tandem with the Fish Forever program, which provides local teams, technical knowledge on sustainable fisheries, community pride, awareness and buy in, government relations and support and impact monitoring. The investment strategy includes two key investment themes used to unlock latent value in coastal fisheries: 1) Community Margin, improving the value per fish caught so they can fish less, for example supply chain and production efficiencies, waste-reduction, aggregation and value-added processing; and 2) Fishing Pressure Offset, helping fishers earn money with other activities to reduce fishing pressure, doing activities they already know how to do.
- 4.6. The triple bottom line impact of the fund targets livelihoods (100,000 fisher household members reached), habitat conserved (1.2 million hectares of coral reef ecosystems improved) and financial return (demonstrated opportunity for commercial rates of return). The Fund looks for projects that can shine a spotlight on early adopters and success stories in the sustainable seafood sector; help SMEs transform and thrive by understanding how ESG and impact drivers will improve long-term business performance; improve the quality of aquaculture and its relationship with wild-caught fisheries; invest throughout the supply chain to enable value creation for local fishers; and finally, to create financial mechanisms get money into hands of local fishers. To succeed, it will take effective management of the resource, investment-readiness is critical, since most aren't ready to receive investment and pressure to behave sustainably, both regulatory and consumer.

Discussion:

- 4.7. **Ms. Maeve Nightingale** from IUCN Asia asked about the limiting factor being the availability of individuals that are able to do this kind of work with local communities. How can investments help address this need and help the NGOs providing this service?

Mr. Galvin: That is a tough question. From RARE's point of view, we provide opportunity to scale these approaches in a community, but the community needs to participate in the management of the resource. We can't expect a business to take on the cost for for this type of capacity development and make itself less competitive in the process.

- 4.8. **Mr. Jurgen Zeitberger**, Manager of the Blue Natural Capital Financing Facility, presented on advancing financially viable conservation projects. Mr. Zeitberger introduced IUCN as a membership union composed of government and civil society organizations dedicated to achieving goals around biodiversity, climate change and sustainable development. IUCN is strongly engaged in tying in the private finance market to conservation and is a founding member of the Coalition for Private Investment in Conservation (CPIC), serving as an implementing partner of an EUR 8 million Global Environmental Facility (GEF) grant to CPIC.

4.9. Conservation projects across the world face many challenges, with stable access to capital as the biggest obstacle to long-term viability. Capital supply is only a fraction of actual conservation finance needs. Funding constraints are seen as one of the most pressing challenges in reaching global conservation targets. According to IUCN's research, the bottleneck is not the lack of liquidity, but the lack of investable conservation assets. Current funding of USD52 billion for conservation finance, predominantly from public bodies and philanthropic donors, still leaves a USD200-300 billion shortfall in needed financing for conservation. Private sector investment is crucial for reaching conservation targets, but conservation projects are for the most part not meeting the risk/return criteria of investors. Innovative approaches to finance are needed to attract private finance, linking conservation initiatives to profitability.

4.10. It's crucial that private sector investment complements public and concessionary spending, that's why the Blue Natural Capital Financing Facility (BNCFF) was launched as an innovative finance initiative that turns coastal conservation projects into investable assets, thereby detangling them from donations and making them attractive for private finance sources. The BNCFF supports projects that combine a viable business model with conservation, assisting project partners in assessing, preparing and structuring projects to strengthen environmental, legal and financial parameters. Support includes technical assistance and seed funding to decrease risks and increase returns of investments, as well as to scale projects. Attractive risk/return profiles are achieved by bundling revenue sources from natural ecosystem services, marine technology and data systems and renewable energy and clean water generation.

4.11. In blue natural capital investments, the positive social and environmental outcomes and impacts are a key rationale for undertaking a project. How to effectively measure and monitor positive impacts is less clear, but is key to the success of these projects. The BNCFF is currently finalizing development of a +Impacts Framework to make impact tracking possible. The +Impacts Framework ensures project activities actively contribute to and can monitor, report and verify positive environmental and social impacts across sectors, identifying the most suitable indicators and methodologies in alignment with best-practices both from the conservation as well as the financial community. The framework can be of wider use for other efforts that wish to assess, evaluate and monitor positive environmental and social impacts of blue natural capital projects.

4.12. It's important that this is done well in the initial stages. We don't want to give the conservation investment market a bad reputation by doing it the "wrong" way now, by not offering investments with a viable business model. One good example is the Net-Works program from Zoological Society of London, which combines conservation with a solid business model, combining sustainable seaweed farming with the collection of discarded fishing nets for recycling. This model combines different revenue streams and offers a good example of how returns can be generated.

Discussion:

4.13. The panel moderator, **Mr. David Pangan** from PEMSEA, asked about how important the East Asia region is in the work that BNCFF is doing.

Mr. Zeitberger: Activities in this region are extremely important, there a huge population, at the same time this creates risks. In the plenary discussion on blue economy, it was mentioned as much as 20% of Gross Domestic Product (GDP) in some countries in the region is tied to coastal and marine ecosystems, which is huge. What you can do here has global impacts. The BNCFF is intended to bridge the gap for projects that aren't quite there yet.

4.14. **Mr. Toto Camba**, Investment Manager for Capital 4 Development (C4D), introduced C4D Partners as an impact invest fund manager based in the Netherlands, with current operations in the Philippines, Indonesia, India, Cambodia and Nepal. The C4D Asia Fund, being launched next year, will be a USD30M impact fund with the ambition to grow to USD50M, focusing in the Philippines, Indonesia and India. Through this fund, C4D aims to deliver both social and financial returns to investors. The fund is sector-agnostic but has preference to invest in the food and agriculture sector, health, water and sanitation, renewable energy and education. Working through its local teams and networks, C4D makes direct investments in companies that have potential to grow, with inclusive business models that do not harm but rather enhance natural resources

4.15. The current investment program in the Philippines targets an investment size of PHP10-100 million to drive and accelerate growth of small and medium enterprises (SME) companies and cooperatives. The tenor should be from 3-7 years using hybrid debt or a combination of debt and equity. The return expectation is IRR-driven, while the main drivers for investing are both impact performance and growth. Investments are assessed on the strength of the entrepreneur, the business risks and the portfolio and impact fit.

4.16. Mr. Camba explained the investment thesis and use of hybrid financing rather than traditional loans. First, SMEs have limited access to mainstream finance due to their high-risk profile, and they usually need just the right amount of capital to effectively drive their growth. So flexible and appropriate financing structures are needed. This capital is not cheap, but the risk appetite is higher. At the same time, many SME's need non-financial services to better manage their growth. They can charge very minimal interest, but they can ask for a revenue share. Revenue share can be an upside based on the performance of the company. Based on fixed income from the interest and revenue share, they will be able to generate the expected IRR from the project.

4.17. From 2013-2017, C4D has already deployed USD10 million to 23 companies in Asia. As an impact investor, they are committed to reporting their impact every year, linking their impact to the SDGs. In the latest reporting, USD7 million in investments across 18 SMEs has resulted in the creation of over 2,500 jobs (45% for women), business for nearly 19,000 suppliers and 226 micro enterprises, with 27% of the investees being women-owned or women-led SMEs.

4.18. On example of an investment is PT Bali Seafood, located in the Lesser Sunda in Indonesia, an area heavily dependent on its fisheries but where there is a lack of infrastructure, inefficient supply chains and where destructive fishing practices are prevalent. C4D provided financing to PT Bali to set up a fully integrated and transparent production process to improve its position in the sustainable seafood market, enabling it to source from artisanal fishers and improve traceability, so more fishers in the area will use sustainable fishing practices. C4D made the investment based on PT Bali's commitment to deliver triple bottom line performance, generating conservation impact, poverty reduction, job creation and enhancement of social well-being.

Discussion:

4.19. **Mr. David Pangan** from PEMSEA, asked how C4D builds a guideline on what impact they want to achieve given that they qualify investments from different sectors. What is the core impact you would like to achieve?

Mr Camba: First of all, the project should be viable and able to generate positive environmental impact. We subscribe to the Global Impact Investment Network (GIIN), which has a comprehensive set of impact indicators that are a useful reference for us to create our own impact framework for specific companies. There is no fixed framework so in every company we have to identify key impact indicators that will be part of the negotiation. It is not just about money, but having the company committed to create, measure and report impact.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Overall, the workshop concluded that conservation projects across the region face many challenges, with stable access to capital as the biggest obstacle to long-term viability. East Asia is extremely important in terms of conservation investment given its huge population and significant coastal ecosystems. Technology, systems and models are available to address the mounting challenges facing sustainable development of oceans and coasts in East Asia, but much more investment will be needed. The bottleneck is not the lack of liquidity, but the lack of investable conservation assets. Development of more pre-feasibility studies of potentially viable investment cases is needed, where costs versus returns are carefully analyzed and understood to establish a sound investment case.

5.2. A supportive policy, regulatory and institutional environment can accelerate the adoption of investments, including provision for effective management of resources. Investment-readiness is critical, since most conservation projects are not meeting the risk/return criteria of investors and are still not ready to receive investment. SMEs have limited access to mainstream finance due to their high-risk profile, and usually need just the right amount of capital to effectively drive their growth. Innovative approaches to finance are needed to attract private finance, linking conservation initiatives to profitability. Realistically, business and investors are unlikely to take on the cost of local or NGO capacity

development, and communities need to participate in the management of the resource. It is important that this is all done well in the initial stages so the conservation investment market does not get a bad reputation by not offering investments with viable models.

5.3. **Recommendations.** The session generated the following recommendations:

- a) Global and regional partners should develop more pre-feasibility studies of investment cases to establish a track record of viable investment models.
- b) Global and regional partners should assist local governments and other local project proponents with their investment-readiness by identifying investible projects that address priority management concerns, assessing business and financial models and matching projects with a network of experts and investors.
- c) Regional and local partners, such as PEMSEA, can help investors to understand local political context, assist with structuring and monitoring for sustainability and environmental and community benefits.
- d) Regional and local partners, such as PEMSEA, can assist in promoting a supportive policy, regulatory and institutional environment to accelerate the adoption of investments, including provision for effective management of resources.
- e) PEMSEA should continue developing investment services and the activation of a regional Ocean Investment Facility to generate a stronger pipeline of investible projects with viable models for environmental and social benefit and investor returns.

ANNEX 1
WORKSHOP PROGRAM

Welcome

The Growing Ocean Investment Ecosystem in East Asia

Ryan Whisnant

Director of Strategic Initiatives

PEMSEA

Presentations and Panel Discussion: Blue Economy Investment Cases from the Region

Learn about concrete investment cases being developed in East Asia across various sectors including waste management and ocean plastics, wastewater as a resource, sustainable aquaculture and marine protection and tourism, and the lessons learned for building a pipeline of investment opportunities.

Moderator: Bruce Dunn, Director, Environment and Safeguards (SDES), Sustainable Development and Climate Change Department (SDCC), Asian Development Bank (ADB)

Ocean Plastics

Rob Kaplan

Founder and CEO

Circulate Capital

Wastewater as a Resource

Jose Marie Lim

Managing Director

LCI Envi Corporation

Sustainable Aquaculture

René Benguerel

Founder & Managing Director

Blueyou Consulting / Impact blue

Marine Protection and Tourism

Alain Maulion

Senior Policy Expert

Blue finance

Investor Perspectives on the Ocean Investment Opportunity

Global and regional investors, including funds and facilities focused on oceans, share their perspectives on the ocean investment opportunity in the region, their role in supporting healthy coastal ecosystems and communities, and gaps that need to be addressed to catalyze more sustainable investment in coasts and oceans

Moderator: David Pangan, Investment Specialist, PEMSEA

Dale Galvin

Managing Partner

Meloy Fund

Jürgen Zeitlberger

*Manager Blue Natural Capital Financing Facility
IUCN*

Toto Camba

*Regional Investment Manager – South East Asia
Capital 4 Development*

ANNEX 2 RESOURCE PERSONS



As PEMSEA's Director of Strategic Initiatives, **Ryan Whisnant** manages the organization's blue economy and ocean investment programs. He has over 15 years' experience building and leading new strategies, initiatives, systems, and capabilities for government, financial institutions, international development organizations and companies including UBS, TIAA-CREF, World Bank, UNDP, USAID, Microsoft, SunGard, and Cisco with an emphasis on environmental sustainability, technology, and investment. He's worked with pension funds, asset managers, and private equity firms to help them better understand environmental and social risks and opportunities in investments across a variety of sectors including agriculture, real estate, transportation, technology and oceans. He holds a BS in Environmental Engineering from Northwestern University, and an MS in Natural Resources & Environment and MBA from the University of Michigan.



Bruce K. Dunn is Director, Environment and Safeguards Division (SDES), Sustainable Development and Climate Change Department (SDCC), Asian Development Bank (ADB). He is an environmental scientist with about 20 years' experience in environment and natural resource management. At ADB, Bruce serves as the Director of Environment and Safeguards, coordinating on environmental and social safeguard compliance issues, as well as technical support on ADB's proactive agenda on environment. Prior to this, he served as Principal Environment Specialist, coordinating ADB's engagement with the Global Environment Facility and leading efforts to increase investments in natural capital. Bruce is originally from Australia, and obtained a Bachelor of Science (Botany) with Honors from the University of Queensland in 2002, and a Bachelor's in Environmental Science from Griffith University in 1999 in Australia.



Rob Kaplan is Founder and CEO of Circulate Capital, an impact investment management firm dedicated to financing companies, projects, and infrastructure that prevent the flow of plastic waste to the world's ocean and advance the circular economy. Rob is a Co-Founder of and Senior Advisor to Closed Loop Partners, an innovative platform for impact investing, sustainability, and the circular economy, where he oversaw strategy and new business model development, as well as day-to-day operations. Previously, he held a position as Director of Sustainability for Walmart, where he led cross-functional efforts to eliminate 20 million metric tons of greenhouse gas from the supply chain. Before joining Walmart, he helped lead corporate responsibility and brand strategy for Brown-Forman Corporation, which produces and markets spirit brands such as Jack Daniel's. Rob received his MBA from the Haas School his undergraduate degree in political communication from the George Washington University.



Engr. Joma Lim is an environmental safeguards specialist for a number of projects in the Philippines, including feasibility studies and development projects on sewerage, sanitation, water supply, integrated water resource management, and septage management funded and supported by the GOP and various development partners (WB, ADB, UNIDO and WHO). Engr. Lim is currently the Managing Director of LCI Envi Corporation, a local environmental consulting and engineering firm in the Philippines involved in environmental and social impact assessment and in design of wastewater treatment systems. He is a BS Chemical Engineering graduate of the University of the Philippines Diliman, where he also earned his MS in Environmental Engineering, with masteral research on industrial wastewater treatment. He has a post graduate diploma for Urban Management Tool for Climate Change from the IHS of Erasmus University in the Netherlands



Alain Maulion is a Senior Policy Expert in Blue finance and collaborates on the design and implementation of the investment schemes for Marine Conservation in the Philippines. Alain has more than 3 decades of experience on policy research, project and business planning, development, management and monitoring and evaluation, including sustainable financing and resource mobilization in areas such as agro/ecotourism, women and development, sustainable livelihoods and biodiversity-friendly enterprises, regional integration adopting competitiveness and inclusive growth frameworks and using ecosystem-based adaptation, triple bottom line and value chain

approaches and case study methods of best practices. He has served as alternate representative (Academe) to the Sub-Committee on Finance, Philippine Development Plan 2011-2016. His work includes competitiveness projects in the Philippines, Greater Mekong Subregion and India with the Asian Development Bank (ADB), World Bank, United Nations Development Programme, USAID and conservation and development projects with Conservation International Philippines, Asian Institute of Management (AIM), Bureau of Fisheries and Aquatic Resources (BFAR), Foundation for Philippine Environment (FPE), and Local Government Units, etc. He has served as an adviser to the Philippine Delegation to the UNCLOS and Conference on Straddling and Highly Migratory Fish Stocks, New York (1994).



René Benguerel is founder and Managing Director of Blueyou. He holds a master's degree in Aquatic Ecology and Fish Biology. Before founding Blueyou in 2004, he worked in the Swiss retail sector where he was appointed procurement manager for sustainable fish and seafood. The Blueyou group of companies is active in the production, trade and distribution of sustainable seafood worldwide; Blueyou is working with producers in Latin America and SE Asia mainly, connecting to markets in Europe, North America and Asia Pacific. The company also offers consulting and advise for sustainable seafood production and acts as project developer for impact investors, NGO and governmental organisations in this emerging field. Blueyou has been developing innovative concepts and investable business models for the transition of the seafood sector towards more sustainable practices in SE Asia, Africa and Latin America.



As PEMSEA's Investment Specialist, **David King Pangan** spearheads the East Asia Ocean Investment Facility, which facilitates private sector investments into bankable blue economy projects that support the implementation of SDS-SEA and PEMSEA's ICM programs. With a decade of experience in private equity, investment services, and impact investment, he has developed both traditional and impact buy and sell side investments in financial services, agriculture, FMCG, aquaculture, retail and healthcare. David started his career working for a boutique private equity firm in New York, USA before moving to Lusaka, Zambia to help build a 300M USD fund with a focus on deal origination. After Africa, David went back to the Philippines and discovered impact investing and joined a 10M USD local investment firm as an Investment Manager. He holds a BA in Economics from the California State University Chico with minors in Food and Nutrition and Chemistry.



Dale Galvin is the Managing Director, Sustainable Markets and Innovative Finance at Rare, as well as Managing Partner of the Meloy Fund, an impact investment fund for sustainable coastal fisheries in Southeast Asia. In these roles, Dale oversees the development of impact investing and blended finance vehicles in Rare's focal areas of oceans, agriculture, and water. Before taking on this new position, Dale spent over a decade as Rare's Chief Operating Officer, where he oversaw all conservation programs, as well as operations. Prior to Rare, Dale held a variety of management roles in the private sector including Chief Financial Officer of PA Consulting Group North America. Dale holds a B.A. in Economics from Cornell University and an M.B.A. from the MIT Sloan School of Management.



Jürgen Zeitlberger is the Facility Manager of IUCN's Blue Natural Capital Financing Facility (BNCFF). He is backing the implementation of the BNCFF, primarily lending his expertise on financial investments to proposals and connecting the conservation field with the financial industry. He is also working on day-to-day management activities to ensure a smooth operation of the BNCFF. Before joining IUCN, Jürgen had worked 8 years in Corporate & Investment Banking, primarily structuring financing loans for companies and projects from Eastern to Western Europe to Central Asia. Transactions included acquisition, project, and CAPEX and OPEX financing

packages. He has earned a Master's degree from Harvard University (USA) in the field of Sustainability & Environmental Management and is a CFA (Chartered Financial Analyst) charterholder. Jürgen received a Bachelor's degree in Export-oriented Management from the IMC – University of Applied Sciences in Austria. He is an Austrian, fluent in German, English & Spanish.



Toto Camba is Senior Investment Manager of Capital 4 Development Partners for Philippines and Cambodia. He has over 20 years of experience in Business Advisory, Development and Corporate Finance and Socially Responsible Investing and Environmental Management. He worked for five years as a business development adviser for the SME Promotion and Vocational Training Program of Swiss Contact and for eight years as Associate Executive Director of the Foundation for Sustainable Society Inc. (FSSI), which supports and finances social and environment friendly SMEs, cooperatives and MFIs in the Philippines. Prior to joining C4D Partners, he worked with Inter-Church Organization for Development Cooperation (ICCO Cooperation) for three years as Program Officer for Financial Services implementing programs on financial inclusion and agriculture finance in South East Asia covering the Philippines, Cambodia and Indonesia. Toto holds a degree in Political Sciences from Far Eastern University and a Diploma in Corporate Finance from Ateneo Graduate School of Business and completed his Master Units in Public Administration from the University of the Philippines.