Japan SDGs Innovation Challenge for UNDP Accelerator Labs
[Philippines] ACCELERATOR LAB INNOVATION CHALLENGE

Target SDGs	11, 12 & 14
Sustainable development challenge that A-Lab is working on.	The Philippine Accelerator Lab Team are working on Sustainable Cities (SDG 11) and Marine Litter (SDG 12 & 14) - both systemic and interconnected issues. To date, the Philippines stand as the third biggest contributor of marine litter in Asia throwing 2.7 million tons of plastic every year. The amount of mismanaged plastic waste generated by 83.4 million coastal residents in the Philippines was 1.88 million metric tons in 2010, with a high level of plastic bag consumption (Jambeck et al, 2015). As 60% of the Philippine population lives within the 832 coastal municipalities and 25 coastal cities (DENR et al. 1997), urban centers stand as a major contributor to marine litter in the country. With sixteen city administrations in Metro Manila, robust data is needed to better understand waste flow through cross-boundary tributaries that ultimately lead to Manila Bay. These can inform better regulation, policy harmonization, and align implementation towards scaled impact. As cities serve as economic hubs and engines for growth of the country, this also requires the need to urgently reduce the ecological footprint by changing the way we produce and consume. The COVID-19 pandemic has especially increased the pressure on city administrations to support the revival of economic activity, building the momentum and entry points to promote models for sustainable consumption and production. Altogether, this approach provides an opportunity to leverage the dynamics of the growing innovative and creative spirit of urban centers to propose and prototype solutions that will address the scourge of marine litter.
Learning questions that A-Lab is trying to answer related to this challenge.	Among the many learning questions that our lab is exploring under the frontier challenge area of Marine Litter, we would like to focus on: ● How might we strengthen knowledge to accelerate local action to reduce marine litter and promote local circular economies? How do we create an enabling structure and system that will support innovators for circular economy? ● What novel solutions are innovators introducing to help reduce marine litter through responsible production and consumption, such as sustainable packaging materials? How can this be scaled for widespread adoption? ● What "unusual" technologies, methodologies, and techniques can be used to improve the monitoring of waste leakages from land-based sources through waterways? ● What strategies are effective for consumers to change behavior from single-use plastics towards sustainable materials, as well as attitudes towards waste management? Which platforms and messages work best for each targeted persona?

Target beneficiaries and stakeholders that A-Lab is serving related to these learning questions and the development challenge.	Ultimately, the Lab's work in marine litter will benefit the urban poor who are disproportionately affected by poor waste management and sanitation (e.g. informal settlers along water tributaries), those who earn their living from the informal waste economy (e.g., waste pickers), and those due to choice and circumstance contribute to the issue (e.g., poor households buying "sachet" goods). In undertaking this initiative, the Lab will be working with the following partners: • Department of Environment & Natural Resources (DENR) - support for the implementation of the National Plan of Action on Marine Litter • Government partners and local stakeholders in Pasig City & Marikina City • Local Startup and Innovation Network (e.g. QBO Innovation Hub, Ideaspace, ISIP, Makesense, HiFi, Animo Labs, Nexus Labs, etc) • Academic and research institutions • Local non-government organizations (NGOs), community organizations
Description of the problem to Japanese partners who may wish to work with A-Lab.	1. We need cutting-edge sensor technologies to monitoring the leakage of waste through water tributaries (particularly Pasig river, the main artery in Metro Manila), and tools to effectively communicate data from these sensors to local governments to guide them in managing solid waste. We want this kind of monitoring technology and the data it produces to be open and accessible even to the communities along waterways. 2. We need to have a suite of alternative and sustainable food/FMCG packaging materials that we could test for acceptability by both producers and consumers and eventual scaling for commercialization. We want to test these alternative packaging materials for viability in terms of socio-economic (e.g. costs) and behavioral (e.g. usability) factors.
Research done on current market solutions that informs this work as needing innovation.	The Philippine Accelerator Lab, together with the UNDP Country Office Climate Action Team, has been supporting the Department of Environment & Natural Resources in the preparation of the National Program of Action on Marine Litter through the introduction of the Human-Centered Design and Systems Thinking in the multi-stakeholder consultation process. The consolidated results have pointed out to the following chokepoints that have potentials to be levers of change in the marine litter system map: 1. Real-time and accurate baseline data to measure how much waste is leaked to water bodies. 2. Urban center waste management, particularly in river tributaries that feed into the Manila bay, and eventually to the ocean. 3. Innovative and sustainable solutions to alternative packaging to minimize the use of single use plastics. 4. Support and recognition for informal waste workers to strengthen segregation-at-source, recycling, and upcycling activities.
The way Japanese science/technology /methodologies could advance A-	1. The Japanese government has had a long history of providing official development assistance to the Philippines in terms of dam, irrigation, flood management, and other water management technologies. Building on this track record, we want to challenge Japanese development actors help

Lab's work on this problem.	identify or propose potential sensing technologies to help improve waste leakage monitoring. 2. The Japanese government and Japanese firms have been exploring and testing solutions for alternative packaging materials and we want to tap into Japan's cutting-edge technology and experience in implementing these in "nudging" both consumers and producers to adopt sustainable packaging. 3. Japan has also been one of the leading nations in waste management where emphasis is not just on the efficient and sanitary collection of waste, but also reduction in waste produced and recycling of waste when possible.
Experimental and/or exploratory component.	**Exploration of innovative tools and methodologies for evidence-based policy and programming at the city level** Application of these for issues that are transboundary in nature could usher in new models of governance that reflect policy harmonization and alignment in implementing innovations, which can mitigate the risk of reversing gains made in one locality, while also increasing prospects for scaled impact.
Description of A-Lab portfolio.	This challenge builds on the Accelerator Lab's cities portfolio in building the case for: 1. Data innovations to support evidence-based policymaking - developing the SDG City Dashboard surfaced data gaps that are available at the local level. Granular data could especially help facilitate transboundary governance. 2. Leveraging alternative sustainable livelihoods and inclusive supply chains as a means for spurring local economic development for COVID-19 recovery and actualizing UNDP 2.0 3. Dynamic governance in the context of transboundary issues to harness collaboration among autonomous city administrations while fostering accountability in the stewardship of common goods
Information publicly available on A-Lab's work on this. And previous or ongoing experience country office have working with Japanese partners.	1. Blogs & social media posts on the Philippine Accelerator Lab's work on Marine Litter & Sustainable cities: a. Marine Litter https://www.ph.undp.org/content/philippines/en/home/blog/2019/a-problem-as-huge-as-the-ocean.html https://www.facebook.com/undp.ph/posts/2539915269397099 https://twitter.com/UNDPPH/status/1189450057659179009 https://twitter.com/UNDPPH/status/1189080541892472832 b. Sustainable Cities https://www.ph.undp.org/content/philippines/en/home/blog/2020/exploration-and-the-city.html https://twitter.com/UNDPPH/status/1233277638564696066 https://twitter.com/UNDPPH/status/1177538363831640065 https://twitter.com/irinavelasc/status/1232309816606879746 2. Japan-funded Covid-19 Response: a. Strengthening PHL Covid19 Response - Support to strengthening the capacity of the Philippine government and various sectors in responding to the crisis brought about by the Covid19 Pandemic (July 2020 – March 2021) https://open.undp.org/projects/00127818

	b. Bangsamoro Autonomous Region for Muslim Mindanao (BARMM)
	• Strengthening national and local resilience to violent extremism in the Philippines (January 2018-May 2020) – Supported the strengthening of institutional capacities and resilience of national and local actors to prevent and counter violent extremism. https://open.undp.org/projects/00100448
	• Assistance to Normalization Project (March 2019 – ongoing) - The main outcome of the project is to assist the decommissioning of the MILF's armed forces and to promote security and stability and in the Bangsamoro region under the Comprehensive Agreement on Bangsamoro (CAB) https://open.undp.org/projects/00113266

References:
1. Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., ... & Law, K. L. (2015). Plastic waste inputs from land into the ocean. Science, 347(6223), 768-771.
2. DENR (Department of Environment and Natural Resources). 1995. Philippine forestry statistics. Forest Management Bureau, DENR, Quezon City, Philippines.