

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

Target SDGs	11 & 12
Sustainable development challenge that A-Lab is working on.	<p>Waste pollution in Viet Nam</p> <p>Solid waste management will be one of the major development challenges for decades to come, with an especially heavy burden for emerging and fast-growing economies. This is due in large part, to the fact that there is a tendency for increases in per capita waste generation to be coupled with increase in per capita income.</p> <p>Between 2015 and 2020, average rates of municipal waste in Viet Nam increased from 21 million tons to 35 million tons annually (ISPONRE, 2017) and is projected to increase to 52 million tons by 2025.). 70% of waste is disposed of in landfills, while the remaining 30% is burned or illegally dumped. In urban areas, more than 85% of waste is collected, but in rural areas, the collection rate is only between 40% and 45% (ISPONRE, 2018). Plastic waste, in particular, accounts for between 10% and 12% of the total amount of solid waste generated in Viet Nam, amounting to approximately 1.8 million tons every year.</p> <p>Rapid urbanization and population growth add to the problem, making collection increasingly problematic and sites for treatment harder to locate. For many local administrations, particularly in poorer settings, waste management is becoming a major expenditure item. Poorer communities’ suffer most in such contexts. Between 400,000 and 1 million people die each year in developing countries because of diseases caused by mismanaged waste (estimates poverty charity Tearfund).</p> <p>The current government waste management system has inadequate resources, legislative framework and capacity, and technical knowledge to cope with this rapid increase. Landfill infrastructure in Viet Nam is outdated and of low-quality, which, coupled with the lack of enforcement of environmental protection standards for industries and improper waste storage practices, means that the leakage of pollutants is common. Furthermore, Vietnamese SMEs lack incentives, funding and the technical knowledge to transform their production processes towards a more sustainable business model, such as adopting circularity especially in regard to plastics.</p>
Learning questions that A-Lab is trying to answer related to this challenge.	<p>Accelerator Lab Viet Nam is currently supporting the city of Da Nang in addressing the complex and multifaceted issue of solid waste management in the city through experimentation and systemic design. The questions the team has been exploring are:</p> <ul style="list-style-type: none"> - How might we promote circular economy business models that can reduce solid waste from the upstream perspective? - What are the root causes of the waste problem in Viet Nam? - How does the current waste management system work? - How can behaviors be changed to reduce the use of plastics? - How can authorities measure different types of waste and its impacts more accurately?

	<p>Additionally, the team would like to explore questions relating to specific sources of solid waste such as e-waste, which is consistently growing in volume and posing significant environmental threats. Therefore, some key questions for the team to explore would be:</p> <ul style="list-style-type: none"> - How does the e-waste management system currently look like? - How to manage e-waste better? - How to promote producers' extended responsibility? <p>These questions have been explored in the context of Da Nang, where UNDP Viet Nam CO has strategic relationships and also signed an MOU with. However, it is expected that these questions will be explored beyond Da Nang in other cities that have shown interest, such as Hue, with which an MoU was recently signed.</p>
<p>Target beneficiaries and stakeholders that A-Lab is serving related to these learning questions and the development challenge.</p>	<p>As part of the work in Da Nang, the team has created a portfolio of experiments and been working with a diverse set of stakeholders, all part of the waste ecosystem which was identified in the Systemic Design workshop last November. From the Government, UNDP has been working with the Vietnam Administration of Seas and Islands (VASI) and the Vietnam Environment Administration (VEA), (under the Ministry of Natural Resources and Environment - MONRE), provincial Department of Natural Resources and Environment (DONRE) and Department of Information and Communication (DIC). Understanding that the challenge has multiple owners, the Lab has been working together with other units of UNDP Viet Nam to expand on the stakeholder types such as informal waste workers, social enterprises Evergreen Labs, private sector such as Lagom company and multinational Tetra Pak. To ultimately serve to reduce the waste burden on environment and planetary boundaries.</p>
<p>Description of the problem to Japanese partners who may wish to work with A-Lab.</p>	<p>There are three key areas where Japanese expertise and technology could be leveraged.</p> <p>Firstly, to address the issues mentioned above there is a need for sustainable, affordable and durable alternative materials to plastic packaging. This would address the upstream challenges on waste management preventing waste and plastic accumulation.</p> <p>Secondly, to address some of the downstream challenges in waste, there is a particular need for a solution for waste measurement using new data sources and technologies such as satellites and drones imagery.</p> <p>Finally, there is a need for solutions for e-waste - its collection and management, which is particularly harmful for the environment requiring specific collection and treatment mechanisms. The current system is not well equipped to manage rapidly accumulating amounts of waste.</p>
<p>Research done on current market solutions that informs this work as needing innovation.</p>	<p>Regarding new market solutions, the Lab has carried out a solution mapping on waste management innovations in Da Nang City to accumulate information on the existing level of technologies and solutions. Furthermore, to better understand the waste management system and the needs, the Lab conducted a Systemic Design workshop with key stakeholders to better understand the underlying relationships, dynamic and activities in the waste management space.</p>

	<p>The Lab has also carried out ethnographic research on different stakeholders in the waste management system of Da Nang City.</p> <p>In addition to the work that the Lab is doing in Da Nang, the UNDP Viet Nam has also carried out a baseline research on the current situation of waste, including plastic in Viet Nam. UNDP is also working on reducing plastic waste through an innovation challenge EPPIC as well as scaling up of a socialized model of waste management in 5 cities in Viet Nam. Working together with relevant authorities on introducing Circularity principles into Law of Environmental Protection, supporting the Government to implement the Basel Convention controlling transboundary movements of hazardous waste and their disposal, Minamata Convention on Mercury, Stockholm Convention on Persistent Organic Pollutants.</p>
<p>The way Japanese science/technology /methodologies could advance A-Lab’s work on this problem.</p>	<p>Japan is one of the pioneering countries in the Asia- Pacific region in waste management. Furthermore, Japan is one of the first countries to carry out an e-waste management program which could be very useful for Da Nang or the neighboring cities to learn from and pilot. In addition, Japan has many good laws on waste management, especially e-waste, and also procedures on collecting e-waste.</p> <p>The country has many technologies and processes that can solve problems of waste pollution. Japanese culture/context is also quite similar to Viet Nam which can help to translate solutions more easily. Waste management partnership is also a priority that our Prime Minister emphasized. Finally, there have been different Japanese projects in Viet Nam in the area of waste management which the additional activities could build on. For example, there is currently a JICA project in Da Nang focusing on waste treatment.</p>
<p>Experimental and/or exploratory component.</p>	<p>As part of the proposed experiment the idea would be to test Japanese technology and processes in the Vietnamese context to contribute to solving some of the most pressing challenges on both solid waste and more particularly e-waste in Da Nang and its neighboring cities. Furthermore, the experiment would be part of a larger portfolio of interventions in the space already taking place in Da Nang.</p>
<p>Description of A-Lab portfolio.</p>	<p>Accelerator Lab Viet Nam has invested a lot of effort in the area of waste management over our first year of operation. Out of a Systemic Design workshop, where convened relevant stakeholders to ask the question of how we can redesign the current waste management system with circularity in mind. Out of the workshop, 2 main goals were proposed to help shift the current unsustainable paradigm to transitioning to a circular state:</p> <p>Enhancing the current SWM: This goal seeks to enhance the effectiveness of current processes, enforcement, structures, behaviors, etc. of the current system. By enhancing compliance among private sector entities and consumers with rules/regulations/societal expectations that currently exist.</p> <p>Green Consumption: This is a longer-term and more ambitious goal of finding ways to disrupt current unsustainable consumption habits by driving green consumption and production in Da Nang, promoting the circular business practice.</p>

	<p>From the recognition that no single solution or disparate collection of projects will be able to shift the current waste system in a sustainable direction, the Accelerator Lab together with Regional Innovation Centre and Alberta Co-Lab created a portfolio of interventions aiming to address the challenge more systemically. The Lab also wishes to bring government and local innovator ecosystem (startups, NGOs, community innovators...) together in Circular Economy Lab, which is a space to co-create the future of Da Nang that's free of waste pollution and environmental issues. Circular Economy Lab is also part of the bigger structure of the City Lab, which is the collaboration between UNDP and the Danang's People's Committee to bring social innovation approaches into solving complex , urban challenges.</p>
<p>Information publicly available on A-Lab's work on this. And previous or ongoing experience country office have working with Japanese partners.</p>	<p>Japan is currently generously supporting the efforts of UNDP to support the Government of VietNam in COVID-19 recovery and response.</p> <p>The COVID-19 pandemic has impacted the economy of VietNam through reduced consumer spending, production and trade, with a severe contraction in output, especially in the tourism, transportation, retail trade and manufacturing sectors. According to official estimates, GDP grew by 3.82 per cent in the first quarter (Q1) 2020, the lowest in the 2011-2020 period, compared to a growth rate of 6.79 percent during Q1, 2019. Viet Nam's General Statistics Office (GSO) reported that an estimated five million workers and nearly 85 percent of companies in the country were negatively affected by COVID-19 in Q1 2020. Further impacts are expected to be shown in Q2 figures, including the impact of physical distancing measures.</p> <p>The COVID-19 response and recovery supported by Japan includes strengthening of the health system, Inclusive and integrated crisis management and response, supporting the vulnerable groups and digital transformation activities introducing citizen centric digital governance and e-commerce activities to help businesses to recover and be more resilient in co-existing with the COVID reality.</p> <p>UNDP Viet Nam and Japan has strong collaboration in different Development Partners working groups as well as other programs such as the Support Program to Respond to Climate Change (SPR-CC), which is the policy-based general budget support, the Mekong Delta Working Group, aiming to promote regional cooperation and integrated approaches for a prosperous Me Kong Delta Region.</p> <p>https://www.vn.undp.org/content/vietnam/en/home/blog/Experimentation-part1.html</p> <p>https://www.vn.undp.org/content/vietnam/en/home/blog/Experimentation-part2.html</p>