

PLASTICS IN CIRCLES INDONESIA

**LESSONS FROM BUILDING CIRCULAR PLASTICS VALUE
CHAINS IN PRACTICE IN INDONESIA, 2022-2023**



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SUMMARY

Only ten percent of Indonesia’s roughly 7 million tons of plastic waste (annually) is recycled. This causes a tremendous impact on the environment. In order to address this challenge, a group of Dutch and Indonesian organizations started the program: ‘Plastics in Circles: Indo-Dutch Consortium on Circular Plastics’ (PiCi). This program is supported by Rijkswaterstaat (Dutch Ministry of Infrastructure and Water Management) and the Dutch Embassy in Jakarta.

In the PiCi program, Dutch companies are implementing their proven technologies and best practices together with Indonesian parties. The goal? To reduce plastic pollution and increase the quality of plastic waste streams for recycling. The starting point is to develop a scalable model that can be replicated throughout Indonesia - and beyond.

From the five PiCi projects established, two have been launched in Indonesia on May 1, 2022 and April 1, 2022. The projects are funded by P4G, the Dutch Ministry of Foreign Affairs, local partners and the organizations involved, and others. TNO, Rebel and MVO Nederland focus on program management, impact monitoring, retrieving and sharing lessons learned and scaling up solutions by connecting to relevant stakeholders. PiCi project 1 aims to implement a best practice model for waste collection and sorting on the island of Ambon, based on proven concepts and technology from Dutch partners SweepSmart and Geesinknorba. PiCi Project 3 focuses on setting up the Upp! Circular Plastic Factory in Sidoarjo, near Surabaya, where a unique technique is used to process unsorted, unwashed and unshredded plastics and convert these into building materials, as well as investigate whether Umincorp’s innovative magnetic density sorting technique can be applied on East Java.



Figure 1: Overview of the 5 PiCi projects and partners in the Circular Plastics Value Chain.

The final goal of the PiCi program is to create a full circular plastics value chain. This requires a complex transition and long-lasting change at multiple levels and from multiple stakeholders. Therefore, it is essential to learn by doing. That is why the program design was set up to facilitate learning collectively and to make these learnings explicit. By doing so, it facilitates the options for scaling up and replicating the projects, more efficiently.

In this report, the summary the most important experiences of the various PiCi projects and activities are bundled. The learning experiences as gathered in this overview were collected during three Community of Practice sessions, so-called timeline sessions and in one-on-one interviews.

The main lessons learned can be summed up as:

1. Starting:

- a. Setting up a collaboration with the right partners was learned to be an essential first step. These partners can be found via networks such as Embassies or the PiCi network itself. Choosing the right local partner who has the same vision is crucial to reach the desired result.
- b. With the right partners on board, PiCi partners learned to align expectations amongst the partners. These expectations cover the strategy and set-up of the project (where it was learned that confusion on what the term 'demo' means exactly can be hindering the project's progress), the organisational setting including each partner's roles and responsibilities and clear and transparent budgets.
- c. Involving the local government from the start also includes having all relevant subdivisions on board and spending time to explore their perspective towards the project: if there is resistance, find out why and how to overcome that cause together.

2. Executing:

- a. In all projects it was clear that it is key to understand the local context and culture and adapt to that with examples like having sufficient budget for dinners with the local government and other stakeholders as that is the local way of building the partnership/trust with them.
- b. Involvement of communities is especially important when dealing with behavioural change projects. Here it was learned that the grassroots/bottom-up approach works better than top-down. People started to gain interest when they could see the solution in place – on the ground.
- c. Collaboration best practices that were gained during the execution phase ranged from open communication, taking ownership of assigned tasks, taking time to celebrate (small) successes and establishing trust by taking time to get to know each other.
- d. When funding ends, the handover to the local partners and the government is essential and needs to be prepared for in detail. This includes contractual arrangements about the roles and (financial) responsibilities and a clear plan including sufficient budgets for the maintenance of the operational parts/system.
- e. The business case on paper is different than practice. Things change, some elements that were counted on are not (yet) in place (such as plastic credits or Extended Producer Responsibility; EPR), prices fluctuate etc. It is very important to keep a close eye on creating a viable business case and financial model, so that the project can continue.

3. Scaling up:

- a. Scaling up first and foremost is a balancing act between continuing the ongoing activities (including sufficient attention for maintenance) whilst ensuring sufficient financial and human capacity to expand.
- b. Monitoring the impact you are making facilitates scaling up, as it eases the communication about the project: it directly shows its relevance.
- c. When local communities become aware of the benefits of your solution, they will promote the solution themselves: they will spread the word for you.
- d. Having the right policies and budgets from the (local) government in place will ensure long term continuation of the activities.

Recommendations

- Waste management and plastic recycling should be funded in good coordination between governments and the private sector. → Recommendation: work with blended finance.
- Changes in mindset that are necessary to create a viable business case for plastic waste reduction. → Recommendation: focus on upstream solutions that prevent single use plastics waste in the first place and focus on finding the first adopters (either off-takers of new recycled content building materials or the communities that start sorting the waste first).
- Funding is very important to make projects possible in this field, but funding requirements are sometimes “over” burdening stakeholders. → Recommendation: lower the administrative burden.
- Finding viable business cases is a balancing act. → Recommendation: local and regional governments should for example provide land and pay the salaries of the workers, because this lowers dependence on volatile market prices and reduces the chance that the waste management system collapses due to price issues.
- Policies and budgets from the (local) government ensure long term continuation of the activities. → Recommendation: In the first Community of Practice it was outlined that enforcement from local government policies should be improved to allow projects to expand and scale. This could greatly enhance the waste management system as a whole on the local level.