



A qualitative study on risks and opportunities of plastic credit financing instruments being introduced into the informal waste management sector

Executive Summary Document

Working Paper



Acknowledgment:

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The SEA circular project – Reducing marine litter by addressing the management of the plastic value chain in South-East Asia is implemented by the UNEP Regional Office for Asia and the Pacific and the Coordinating Body on the Seas of East Asia (COBSEA), with funding support from the Government of Sweden. SEA circular aims to reduce and prevent plastic pollution and its impact by working with governments, businesses, civil society, academia, and international partners. The initiative promotes market-based solutions and enabling policies to transform plastic value-chain management, strengthens the science base for informed decision making, creates outreach and awareness. The project leverages COBSEA's regional mechanism to tackle the transboundary challenge of marine litter in a harmonized manner.

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Introduction

The world is facing a global plastic waste crisis. South-East Asia has emerged as one of the world's regions most threatened by plastic pollution that is putting ecosystems and livelihoods in danger (Kwakwa and Garcia Mora 2021; Del Bello 2022; SEA Circular 2022). The reasons for South-East Asia's plastic waste crisis are manifold and by far not only created in the region alone. As such, rapidly increasing figures in terms national production and consumption of plastic products and packaging have equally been met by increasing global plastic waste exports to the region (Marks 2022; Ocean Conservancy 2022).

With national waste management systems in many local contexts across South-East Asia not being able to hold up to the rapidly increasing plastic waste output, the informal waste management sector is growing increasingly important. However, despite their integral contribution to plastic waste management and resource recovery across South-East Asia, informal waste collectors are amongst society's most marginalized groups working under harmful health conditions with no recognition of their essential services as well as lacking access to sustainable sources of income and basic social services.

With national EPR systems that would bring additional long-term funding to local waste management systems still awaiting their implementation in most countries in South-East Asia, additional financing instruments are urgently needed to improve local waste management systems as well as livelihoods within the informal sector. In this context, plastic credits have emerged as a frequently discussed financing approach to plastic waste management. However, while more and more players have been entering the global plastic credit market, research on the various effects of plastic credits is scarce and mainly evolving around their potential environmental contribution.

This study aims to bridge existing research gaps and bring to light a better understanding of the potential risks and opportunities associated with the introduction of plastic credits to the informal waste management sector in South-East Asia. The study's regional focus is constituted namely by Malaysia, Thailand, Indonesia, the Philippines, Cambodia, and Vietnam.

Plastic Credit Schemes and their Stakeholders

This study defines a plastic credit as a transferable unit representing a specific quantity of plastic that has been collected from the environment (The Circulate Initiative 2021; WWF 2021). Plastic credits are sold either directly by project developers and initiatives or via intermediary platforms and marketplaces to the producers of plastic waste, usually companies, manufacturers, or brands from the consumer goods sector. The equivalent value of one plastic credit is defined by the amount and composition of collected plastic waste. The financial sum that the buyers pay for the plastic credits flows back into organisations that carry out or coordinate the collection of plastic waste, usually in countries of the Global South.

Today, roles and activities of different actors in the global plastic credit market are still blurry and oftentimes overlapping which leads to a significant lack of transparency and the risk of relevant social, environmental, and due diligence criteria being overlooked (The Circulate Initiative 2021; ValuCred 2021; WWF 2021). Despite these unclear roles and responsibilities, the plastic credit stakeholder landscape can generally be classified into five categories distinguishing between

- **standard or guideline setters:** define social and environmental criteria that must be met by all parties involved in the generation and trade of a plastic credit;
- **certification service providers:** carry out external audits of plastic credit schemes and the entities involved as to whether standard criteria are met;
- **platforms, marketplaces, and other players:** offer plastic credits for sale;

- **the buyers of plastic credits:** mainly companies from the consumer goods industry aiming to compensate their plastic footprint;
- **collection organisations:** collect (and pre-process) plastic waste and for which plastic credit schemes constitute an additional source of income.

Study Methodology

The study follows a qualitative-exploratory research approach combining a thorough literature analysis and semi-structured guideline interviews as main source of data collection. Overall, 40 interviews were conducted with experts from academic and research-centred institutions as well as with a variety of stakeholders from the plastic waste value chain. Additional interviews were conducted with informal waste collectors as well as with one scrap shop owner from Tien Giang Province in Southern Vietnam.

Findings: Risks and Opportunities of Plastic Credits for the Informal Waste Management Sector

Selected Risks

Insufficient distribution of plastic credit income

Between informal waste management stakeholders involved in activities at the lower end of the plastic waste value chain on the one side and the buyers of plastic credits on the other, a variety of intermediary organisations and process steps exist. Stakeholders from the bottom of the pyramid may not receive significant financial benefits from plastic credits due to a large proportion of the additional income being distributed along the waste management value chain beforehand.

Dependency on voluntary sources of funding

Since plastic credits today constitute merely a voluntary instrument for their buyers, they do not ensure to bring stable long-term funding to local waste management systems and the informal sector. All potential socio-economic benefits created by plastic credits are thus highly volatile and may vanish as soon as their buyers decide to spend funding elsewhere.

Exclusion of key stakeholders through rigid standardisation

While independent standards regulating the generation and exchange of plastic credits are urgently needed, wherever they fail to leave room for regional waste management dynamics and particularities, they bear the risk excluding relevant informal waste management stakeholders from additional sources of funding.

Leaving relevant socio-economic dimensions unconsidered

With their overemphasis on bringing environmental benefits in terms of increased plastic waste collection as well as enabling plastic footprint compensation to their buyers, plastic credits fail to adequately address the social dimension of the plastic waste crisis. As such, plastic credit schemes run the risk of overlooking relevant social dimensions and long-term socio-economic effects on the informal waste management sector as well as to fail the latter's holistic integration.

Selected Opportunities

Bringing additional income

One major opportunity plastic credits may bring is (much-needed) short-term funding to MSWM systems in the Global South. Additional income could trickle down to stakeholders from the informal waste management sector such as informal waste collectors at the lower end of the plastic waste value chain. Plastic credits may thus potentially increase the livelihoods of individual waste collectors and other stakeholders.

Improving the role of women in informal waste collection

When developed and implemented under careful consideration of regional and local gender aspects, plastic credits may foster the socioeconomic empowerment of women engaged in informal waste management activities in both urban and rural areas. Accompanying capacity building may further benefit women by teaching them relevant technology or accounting skills that may also be of use outside of the scope of plastic credit schemes and in more formalized and safe jobs.

Giving the informal waste management sector a voice

By building upon the crucial work of informal waste collectors and other stakeholders, plastic credits bear the opportunity to bring visibility and recognition to informal waste management stakeholders and to strengthen their voice in the international sustainability discourse.

Providing better data for policymaking

For plastic credits to be generated, continuous data tracking is required with regards to waste quantities and material types being collected on the ground and passed along the plastic waste value chain. Policymakers may make use of this additional waste management data to develop better waste management policies that benefit the informal sector.

Areas for Consideration

The Role of Digital Tools

Within plastic credit schemes, digital tools are crucial for continuous and transparent tracking and reporting of operational data such as waste collection, sorting, transport, and treatment data as well as socio-economic data such as living wages, gender, educational background, or access to basic healthcare services. A rigorous use of digital tools may also prevent the risk of double counting in plastic credit schemes. However, if plastic credit schemes fail to provide holistic capacity building on the use of digital tools to all stakeholders from the informal sector, they bear the risk of excluding some of the most vulnerable stakeholders from additional income opportunities.

Environmental Considerations

From a merely environmental perspective, the principle of additionality should be incorporated into plastic credit schemes meaning that plastic credits should only be generated for waste quantities and material types that were previously not collected in the respective region. However, from a social perspective plastic credit schemes may nonetheless significantly improve the livelihoods of informal waste management stakeholders even if the principle of additionality is not applied thoroughly (via additional income opportunities as well as capacity building). Whether plastic credit schemes mandate the principle of additionality thus needs to be carefully considered within each specific context.

Pricing considerations

While prices for plastic credits may differ from country to country, the methodology used for calculating the price of one plastic credit should be universal. Sustainability frameworks and concepts of labour protection should be incorporated into any price calculation. To decrease the vulnerability of informal waste workers by providing more stable income opportunities to them, plastic credit prices should incorporate a baseline compensation which is based on the working hours spent on waste collection.

Additional employment considerations

Representatives from entities involved in selling plastic credits highlight the additional employment opportunities these may bring to local communities in countries of the Global South. Overall, however, no final answer can be made regarding the degree to which plastic credits in fact create additional jobs for previously unemployed people. Plastic credits, in their current form, also bear the risk of manifesting the status quo of a linear economy. Critics therefore argue that the additional funding provided through plastic credits should flow into the establishment of circular waste management systems rather than the creation of additional jobs at the lowest end of the waste value chain.

Selected Recommendations

The study's recommendations help practitioners such as plastic credit marketers, standard setters, and auditors to carefully consider the potential pitfalls and challenges resulting for the informal waste management sector in countries of the Global South when developing and implementing plastic credit schemes. They may also serve organisations and institutions from the international development sector to gain a better understanding of plastic credits and their potential effects on the informal waste management. In addition, the recommendations may help policymakers and institutions from the public sector to play a more active role wherever plastic credits are being generated and to formulate policies and guidelines that ensure that informal waste management stakeholders as well as local MSWM systems benefit from them.

Plastic credits should only be used as a complement to a holistic plastic waste reduction strategy

For their buyers, plastic credits cannot replace the elimination of non-recyclable materials and virgin plastic, the introduction of more sustainable supply chains or an increased use of recyclable materials. They should therefore only be considered as a complement to more holistic plastic waste reduction activities and strategies.

An international plastic waste treaty is needed and may streamline global plastic credit activities

An international legally binding agreement on plastic waste, as agreed upon at United Nation's Environment Assembly in March 2022, is needed for streamlining action against the plastic waste crisis. The treaty may serve as guiding reference and framework for setting universal criteria, a common language for plastic credits, as well as a price calculation methodology.

Plastic credits need a long-term and binding perspective

The voluntary nature of plastic credits brings high vulnerability to informal waste management stakeholders and waste management systems benefitting from the additional funding. Plastic credit schemes must therefore not be set-up as short-term "projects" but instead need to be designed with a long-term and binding perspective.

Companies should only be able to buy plastic credits matching their plastic waste output location and material type

Companies should only be able to buy plastic credits generated through collection activities in the same country context where they bring plastic products into the national market. The same holds with regards to the plastic waste material type. As a surplus, plastic credits should always incorporate the collection and recycling of low-value plastic waste even when buying companies don't bring these to a market.

Plastic credits should bring a three-fold investment to local communities

The additional funding provided through plastic credits should flow into several investment areas, namely: (a) investments into local waste management infrastructures in alignment with EPR principles and under careful consideration and integration of the informal sector; (b) improving the livelihoods of informal waste management stakeholders; and (c) building long-term and waste management-independent capacities in local communities such as awareness creation, (digital) literacy, accounting skills.

Plastic credit prices should be based on an internationally acknowledged calculation methodology

To avoid different prices and valorisation methods undermining each other as well as relevant socio-environmental criteria and standards in a race to the bottom, the price calculation of plastic credits needs to be carried out in accordance with an internationally acknowledged calculation methodology. This also includes the consideration of national EPR fees.

Plastic credit schemes need to incorporate the perspective of the informal waste management sector

When developing, piloting and implementing plastic credit schemes, stakeholders from the informal waste management sector must be involved in every step of the development phase, in order to incorporate their perspectives, needs and experiences.

Plastic credit schemes should empower female waste collectors

Female waste collectors should be given a particular role in the development and implementation of plastic credit schemes. Quotas regulating the participation of women involved in plastic credit schemes may help ensure gender equality but need to reflect the actual involvement of women in local waste management activities prior to the establishment of plastic credits in the context.

Plastic credit standards need to consider local realities and leave room for adaptability to local MSMW particularities

Standards regulating the generation of plastic credits need to leave room for flexibility and adaptation to local waste management systems' dynamics and particularities to not exclude relevant informal waste management stakeholders from participating in plastic credit schemes merely due to rigid standardisation criteria.



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