



LESSONS FROM THE FIELD

Design and Accountability for Source-to-Sea Action on Plastic

Authors

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SIWI implemented the project Design and Accountability for Source-to-Sea Action on Plastic, which focused on supporting local authorities and stakeholders in Hoi An, Viet Nam in developing a five-year environment strategy and strengthening coordination between actors along the plastic waste value chain. This resulted in:

- Deeper understanding of the need for and benefits of the source-to-sea approach in strategy design and its relevance in environmental management.
- Appreciation of the need for coordination between government authorities and the cross-sectoral nature of environmental issues.
- Identification of the role of stakeholders along the plastic waste chain in preventing plastic pollution and recognition of the interdependencies between actors.
- An accountability framework for preventing plastic pollution.

Hoi An, Viet Nam

Hoi An is a mid-sized city situated near the mouth of the Thu Bon River, which is part of the larger Vu Gia–Thu Bon River basin and is located in Quang Nam Province. Since its declaration as a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site in 1999, the city has enjoyed a rapidly growing tourism industry to the point where providing the goods and services required to sustain growth is putting the city under strain.

In recent years, waste generation has increased significantly in Hoi An. In 2013, the amount of waste collected per day was around 65.5 tonnes, but by 2020 International

Union for Conservation of Nature (IUCN) found that a total of 15,927 tonnes was generated, equivalent to 0.44 kg per person per day (Kieu et al., 2020). The city has a high level of waste collection with a daily service involving individuals, transfer sites, and trucks for final disposal either at compost sites for organic matter or the Cam Ha landfill (among other provincial sites) for mixed waste.

According to a study conducted by Hoi An Public Works JSC (HAPW), the company responsible for solid waste management in the city, 25 per cent of the waste collected is plastic, either recyclable or non-recyclable. This elevated share of plastics can be partly explained by tourist numbers, but is nevertheless high compared with other tourist cities in Viet Nam. Since the Hoi An City Peoples Committee study was carried out, initiatives have focused on reducing the use of single-use plastic and preventing its leakage into the environment.

Additional sources of plastic waste that impact residents and businesses in Hoi An are upstream communities along the Thu Bon River and on the coast. These communities produce less waste than Hoi An, but about 30 per cent of it goes unmanaged, making it more likely to end up in the river, on beaches and in the sea.

Plastic pollution has an important impact on the tourism industry of Hoi An because it negatively affects the scenic beauty of the shores and waterways. Additional significant impacts are the increased risk of flooding, as plastic litter clogs the drains of the city; the pressure on local flora and fauna (especially aquatic species); and the consequent risk of people consuming microplastics that enter the food chain through the fish and vegetables produced in the area.



Aerial view of Hoi An, Quang Nam Province, Viet Nam. Photo: Hien Phung Thu.

The need for source-to-sea management

As global challenges around water security, biodiversity loss, and climate change continue to mount, it is clear that new approaches to addressing such challenges are required. These major global challenges are inter-connected in large part through the links between ecosystems and the services they provide, which we rely upon. But we have only recently come to better understand important linkages between land, freshwater, coasts, and oceans thanks to new insights into the complex social, environmental, and economic relationships between different ecosystems – on land and in rivers, deltas, estuaries, coasts, the nearshore, and the ocean.

Traditional governance frameworks and resource management approaches are often structured around individual segments of a source-to-sea system and/or focused on one sector (e.g. forestry, power production, or fisheries), making them poorly suited for managing the source-to-sea system as a whole. This results in outcomes that may not be optimal for the entire source-to-sea system as a focus on optimizing benefits for one sector alone can negatively impact other sectors or stakeholders.

Source-to-sea management considers the entire source-to-sea system – emphasizing upstream and downstream social, environmental, and economic linkages and identifying opportunities to stimulate coordination between sectors and cooperation across segments. This should lead to the establishment of governance, operations, practices, and finance that increase collaboration and coherence across the source-to-sea system. Source-to-sea management aims to reduce alteration of key flows that connect the source-to-sea system (water, pollution, sediment, materials, biota, ecosystem services) with the aim of producing measurable social, environmental, and economic improvement across freshwater, coastal, nearshore, and marine environments.

Source-to-sea challenges

Source-to-sea challenges arise when human activities affect one or more segments of the source-to-sea system and/or they cannot be addressed by one sector alone. Source-to-sea challenges cross the traditional land–freshwater–coast–marine boundaries and arise when one or more key flows are altered as a result of human activities. These alterations are felt in one or more segments of the source-to-sea system and can impact one or more sectors.

Source-to-sea challenges are inherently complex, needing coordination between different sectors and cooperation between upstream and downstream actors to build a coherent approach to addressing the challenge. To confront a source-to-sea challenge, collaboration is necessary between actors present in different segments of the source-to-sea system or active in different sectors. However, such coordination can be difficult to foster. The six-step source-to-sea approach is a structured process for developing shared understanding, a common vision, and an action plan to get there (Mathews et al., 2019). Engaging in this process will lay the groundwork needed to cultivate coordination.

Source-to-Sea Framework for Marine Litter Prevention

Based on the source-to-sea approach, the Source-to-Sea Framework for Marine Litter Prevention (Figure 1) emphasizes the importance of linkages across the source-to-sea system and marries this with the need to revolutionize our production and consumption systems from linear to circular (Mathews and Stretz, 2019). The Framework incentivizes cooperation between upstream and downstream actors, as well as coordination across sectors that can come together to drive changes in behaviour from individual to global levels. The use of the Source-to-Sea Framework is intended to bring together a broad range of stakeholders who can collectively make the changes necessary to halt the flow of plastic pollution into waterways and the ocean.

STEP 1 CHARACTERIZE	STEP 2 ENGAGE	STEP 3 DIAGNOSE	STEP 4 DESIGN	STEP 5 ACT	STEP 6 ADAPT
Identify land-based sources of plastic pollution and understand their impacts from source to sea	Engage local to global stakeholders to gain control of plastic waste	Develop coherent governance, finance and management across sectors and at all scales	Stimulate individual to global behaviour change that prevents plastic pollution	Prioritize within and between source-to-sea systems to direct resources where they are most needed	Monitor changes leading to reductions in plastic pollution, replicate successes with local adaptation

Figure 1: Six steps of the Source-to-Sea Framework for Marine Litter Prevention. Source: Mathews and Stretz, (2019).

Principles of the source-to-sea approach

- ✓ **HOLISTIC** | addressing upstream and downstream linkages across issues, stakeholders, desired outcomes, costs, and benefits
- ✓ **COLLABORATIVE** | building on and enhancing existing institutions, established methods, and ongoing processes
- ✓ **PRIORITIZING** | targeting and addressing the issues that hold the greatest potential for generating positive impacts for the system as a whole, while minimizing negative impacts
- ✓ **PARTICIPATORY** | engaging upstream and downstream stakeholders from the start, including marginalized and vulnerable people, and ensuring equitable sharing of benefits
- ✓ **CONTEXT DEPENDENT** | derived from, and responsive to, the local context
- ✓ **RESULTS ORIENTED** | targeting intermediate outcomes that contribute to overall improved economic, social, and environmental status
- ✓ **ADAPTIVE** | learning-by-doing through pragmatic implementation, monitoring, evaluation, and adaptive management, and sharing across basins and seas

Weaving source-to-sea into local processes

✓ HOLISTIC, CONTEXT DEPENDENT, PRIORITIZING

Upon initiation of the project, the Hoi An City Peoples Committee and the Department of Natural Resources and Environment requested support in developing a five-year environment strategy with an orientation to 2030. Hoi An has the goal to become a green and airy Eco-Cultural City. The environment strategy was developed to meet ambitions indicated in the National Strategy on Green Growth under the Prime Minister's Decision No. 1393/QĐ-TTg, as well as the Law on Environmental Protection 2020. The strategy, and the targets set within it, form the basis for action planning and budgetary requests for their implementation.

The project provided support in identifying opportunities for applying source-to-sea perspectives and systems thinking within the environment strategy. This included identification of co-benefits from proposed actions and the development of methods for monitoring and evaluation. The first three steps of the source-to-sea approach – characterization of the biophysical system, stakeholder mapping, and analysis and diagnosis of the governance baseline – were applied to issue areas covered by the environment strategy – landscape, greenery, wastewater, solid waste, and clean energy. Desk review of existing data and materials and key informant interviews were conducted to gather baseline information for each of these issue areas. A workshop was held to introduce stakeholders to the source-to-sea approach, to build a shared understanding of the environmental management landscape and its challenges, and to hear about ongoing initiatives addressing the strategy's issue areas. This was followed by technical training on using the source-to-sea approach to identify challenges, gaps, barriers, and opportunities for improved environmental management. With this background collected, a theory of change was developed to achieve Hoi An's ultimate goal of becoming an Eco-Cultural City.

Despite time and capacity limitations to fully apply the source-to-sea approach to the development of the environment strategy, local authorities acknowledged that doing so did improve the final document. Participants felt there was real value in applying the source-to-sea approach within their work, whether as part of plan preparation or as a part of monitoring and evaluation.

While many environmental challenges can be addressed within jurisdictional or geographical boundaries, others have sources outside these boundaries and require coordination with other institutions and stakeholders at a provincial or national level. These include environmental problems that have significant upstream–downstream components, such as water pollution or sedimentation; and those challenges where attention to different segments of a value chain is required, such as in the production, use, collection, and disposal of plastic products and packaging.

The source-to-sea nature of some environmental issues facing Hoi An was raised and efforts were made to include recognition of the need for coordination with upstream and downstream actors outside of the boundaries of Hoi An in the strategy. This is especially pertinent for the issues of plastic pollution and water quality impacts from

wastewater. It is well documented that mismanaged solid waste is being transported from upstream, mostly rural, communities to Hoi An when rainfall washes this waste into the river. While this was well understood, the inclusion of these source-to-sea connections or the need for fostering coordination between Hoi An and other jurisdictions met with resistance. Several barriers to including these in the environment strategy were identified.

- While urban areas are often reliant on upstream parties to address the impacts at their source, these urban areas may lack the governance mechanisms or mandate to act or influence such action and upstream parties may not have the resources or technical capacity to undertake them on their own.
- Formulations at the national level constrain the objectives, role, and content of local planning instruments, as well as the mandates of subnational institutions. Barriers to coordination occur when coordination between jurisdictions and upstream–downstream actors is not anticipated within the national framework, and there is no instruction to do so, or the directions to do so are unclear on how it is to be implemented.
- There is often a lack of recognition by subnational authorities on how policies and activities in their jurisdiction can affect other jurisdictions, whether upstream or downstream. There may also be a lack of incentives to coordinate with entities outside their boundaries.
- Local institutions may have limited human resources and lack time and motivation to introduce wider perspectives into their work. In addition, there is often pressure to achieve results that is not conducive to the adoption of new approaches given very busy schedules and limited resources.
- The perception that applying source-to-sea perspectives or systems approaches adds a layer of complexity to planning or is a burden that will delay successful completion of actions.
- Concern that if activities outside jurisdictional boundaries are included in the strategy, these might make urban authorities accountable for addressing them even though they have little control over them and might also be overstepping their mandate.

To combat these barriers, several steps can be taken.

- The benefits of incorporating source-to-sea perspectives in environmental planning and management need to be better defined and supported through research and case study examples.
- Simple, early-stage coordination between urban and rural authorities and/or upstream and downstream stakeholders can be developed and facilitated through use of the source-to-sea approach. While coming together to discuss issues is important, it is not sufficient. Decisions also need to be taken holistically.

- This type of decision-making approach is best grounded in national legislation and states should ensure that source-to-sea perspectives are reflected in the laws and directives of the government. Where coordination between jurisdictions is indicated in the national governance framework, develop guidelines on how to implement this and provide the resources to do so. Where it is not yet included at the national level, advocate for its inclusion as a means for addressing the country's priority source-to-sea challenges.
- Recognize that cross-sectoral and cross-jurisdictional coordination requires behaviour change on the part of institutions and individuals and invest the time and capacity development to implement these changes.
- Donors need to work more closely together with a longer-term vision to create more coherence between projects. Having short-term projects can lead to wasted resources and frustration in government and local stakeholders, as progress is made and then stalls when the projects end. At least 5–10 years are needed with commitment from both the donors and the government administration to achieve and secure the changes that are needed.

Change is required at all levels to take a more holistic approach to environmental management. This engagement with Hoi An authorities represents the first time that the source-to-sea approach was used in the development of an environment strategy, which provided a unique opportunity to explore the benefits and challenges of incorporating source-to-sea perspectives.

Collaborative action to prevent plastic pollution

✓ COLLABORATIVE, PARTICIPATORY, RESULTS ORIENTED

The linkages between land, freshwater, coasts, and the ocean are highly relevant in addressing plastic pollution, since significant amounts of plastic waste are carried from land-based sources, through waterways, to coasts and the ocean. The impacts of inadequate solid waste and wastewater management in upstream areas travel downstream and can affect downstream communities and those reliant on coastal and ocean ecosystems for their livelihoods. Current fragmented and isolated responses to plastic pollution have been unsuccessful or only partly successful in addressing them. This has been the case with efforts to prevent plastic pollution, as initiatives often focus on individual segments of a source-to-sea system and/or on one sector of the plastics value chain, making them poorly suited to address all the root causes of plastic leakage into the natural environment.

The main burden for addressing plastic leakage from land-based sources has been on municipalities and their provision of waste management services, even though other actors can be accountable, and the impacts may be felt by a much wider range of stakeholders. In many cases, the municipalities are also the weakest actor, with limited resources, limited capacities, and an extensive list of other priorities. As demonstrated by the growing problem of plastic pollution in the riverine and marine environments, many municipalities are not able to gain control over their waste. While much of the

required action needs to be taken at the local level, municipalities alone cannot drive all the required changes and need support from actors across the plastic value chain, the source-to-sea system, and beyond.

Following the finalization of the environment strategy for Hoi An, the project focused on the issue of plastic pollution from the perspective of improving solid waste management, while being aware that the overall solution to plastic pollution must include the design and production of plastic products and packaging. This focus was in line with the mandate of the municipality, which has the responsibility of managing plastic goods after their use and disposal. A combination of desk review of existing data and materials using steps 1, 2, and 3 of the source-to-sea approach was used to build an understanding of the plastic waste situation in Hoi An, including disposal, collection, transportation, and treatment. This was complemented by key informant interviews and questionnaire surveys of households and the informal sector. Discussions were held in four focus groups with stakeholders from the government sector, civil society organizations, private sector, and informal sector to identify the existing barriers and challenges in plastic waste management in Hoi An.

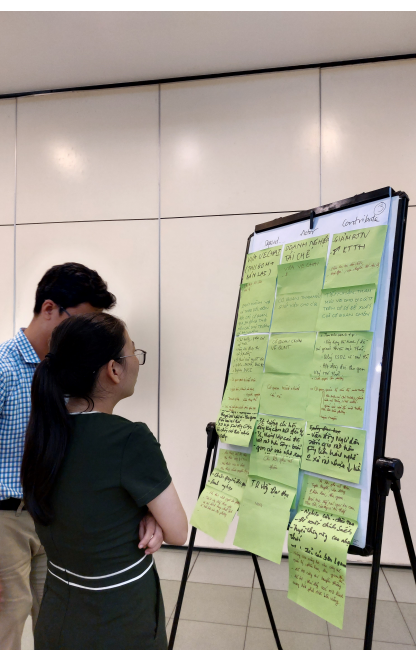
All of this was followed by a stakeholder engagement workshop that brought the four stakeholder groups together to share information and to identify actions that would contribute to preventing plastic pollution. Workshop participants worked in cross-sectoral groups to identify the key actors in the plastic waste value chain and describe each actor's dependencies on and contributions to others. These dependencies and contributions link the different actors together in a web of inter-dependencies. Each actor along the plastic value chain has a specific role and in that role delivers a service to other actors in the value chain. Understanding these roles is a first step towards collaborative action to prevent plastic pollution.

It is important to highlight that catalysing joint action requires attention to relationships and power dynamics between different actors and how these influence decisions, especially when substantial differences in power and influence exist. These differences must be considered irrespective of whether it is the decision to engage in a process or the final outcomes. For example, a common challenge in environmental management and preventing plastic pollution is ensuring active participation of informal sectors. In Hoi An, specific steps were taken to ensure an inclusive and participatory process for all relevant stakeholders. This included careful facilitation of group discussions and assigning support persons to those who were less comfortable with speaking up in groups or were illiterate and unable to write their own contributions.

Based on the focus group discussions of barriers and challenges, the workshop participants were able to identify areas where there is need for and opportunities to make changes that will improve the relationships between actors. To move towards zero plastic pollution, each of these actors needs to contribute specific actions and behaviour changes that will combine with others to achieve that aim. Building on the understanding of the inter-relationships between the different actors and the roles of each individual actor, the groups described the actions that can be taken to prevent plastic pollution.

During the workshop, participants noted that many activities on plastic pollution are not coordinated very well with other activities, such that the overall effectiveness of each is reduced. By working together across stakeholder groups, a more holistic picture of the full set of actions needed was developed. Creating this common understanding of what needs to be done can lead to more coherence and synergies between actions. Additionally, participants highlighted the need for improved coordination across donor-funded projects active in Hoi An and the importance that these projects build on previous successes to continue to create momentum towards ending plastic pollution.

The workshop was well attended by representatives of different sectors, most notably by the informal sector and the Women's Union. Their participation in workshops such as this is rare, and it was noted that given their very important role in recovering plastic from the waste stream, in particular goods that can be recycled, their participation is critical. They contributed direct experience of what leads to mismanagement of plastic waste that can be missed when discussions are between policy-makers, local authorities, NGOs, and the private sector. They identified regulations that need to be enforced, as well as the provision of infrastructure that would enable them to successfully capture recyclable solid waste before it reaches the landfill. Inclusion of the informal sector provided an opportunity for these needs to be heard by local authorities and follow-up was promised.



Workshop in Hoi An, September 2022. Photos: Ruth Mathews, José Murillo.

Accountability bridges steps 4, 5, and 6 of the source-to-sea approach

✓ HOLISTIC, RESULTS ORIENTED, ADAPTIVE

Since source-to-sea challenges cross traditional land–freshwater–coast–marine boundaries and arise when one or more key flows are altered as a result of human activities, they require engagement of more than one sector and both upstream and downstream actors. However, it may be difficult to bring all these stakeholders together and have them oriented towards a common goal. This can have its roots in the limitations of mandates of specific parties, lack of resources for engagement, and/or there being no incentives for participation or change. It can be helpful to have one or more individuals or organizations that have the convening power to bring the stakeholders together.

In the case of Hoi An, SIWI, IUCN, and the consultant provided that convening power. Stakeholders were incentivized to participate due to their relationships to plastic waste – either as part of the formal or informal management of plastic waste or because of how they are impacted by the failure of that management. When addressing a source-to-sea challenge such as plastic pollution, for benefits to accrue across the source-to-sea system, various government, private sector, and civil society actors will need to come together around a common vision for which they share responsibility for delivering a range of different and complementary actions.

Once a multi-stakeholder process is initiated, for collaborative action to succeed, there needs to be accountability between the different actors for their delivery of the actions required from each of them. Given the complex nature of source-to-sea challenges, these actions may be inter-dependent, i.e. one actor may be dependent on another's actions to be successful. An example of this is the informal sector that collects recyclable goods in Hoi An can only be successful in capturing the maximum amounts of these goods if people separate them from their other wastes.

Building a framework for accountability between actors and the actions that they are individually or jointly responsible for will illuminate the inter-dependencies between actors, which can provide a system view of all that needs to be done and how it fits together. Making these relationships explicit can be the basis for agreements between actors and clarify the responsibilities of each actor for contributing to the delivery of an action plan. Transparency of these relationships can help identify where changes in behaviour and practices or other enabling conditions are needed and can be used to increase trust, thereby engendering a willingness to work together towards the common goal. The accountability framework can factor in periodic evaluation of progress on individual actions and assist in monitoring progress towards the intended goal. By tracking the outcomes from the actions taken, the action plan can be evaluated and adapted as needed to incorporate new knowledge or changes in the local context.

Formulating an accountability framework as part of collaborative action ties in nicely with steps 4 (Design), 5 (Act), and 6 (Adapt) of the source-to-sea approach. The knowledge base developed in steps 1, 2, and 3 can be used by stakeholders to look

towards the desired future condition and how they might get there. In Step 4, a theory of change that articulates the long-term outcomes, changes in state, changes in behaviour, and enabling conditions is developed. From this, actions can be identified and a plan put in place for their implementation – Step 5 of the approach. Finally, the accountability framework can be used to monitor progress, evaluate outcomes, and adapt the action plan, completing the circle in Step 6. An accountability framework therefore bridges the design phase of Step 4, in which the theory of change is developed, the planning and implementation of actions of Step 5, and the monitoring, learning, and adapting of Step 6.

Anchoring source-to-sea expertise locally

✓ CONTEXT DEPENDENT, RESULTS ORIENTED, PARTICIPATORY

Tackling source-to-sea challenges requires long-term commitment to building the social capacity for, and governance infrastructure that supports, cross-sectoral coordination and upstream–downstream cooperation. A short-term project such as this one cannot fully realize the changes needed to establish holistic, source-to-sea management as a normal part of day-to-day activities. However, several steps can be taken to ensure that source-to-sea thinking and action take root locally.

SIWI enjoys a strong reputation as a global source-to-sea expert and thought leader thanks to its previous work in Viet Nam, its knowledge production on source to sea, and by hosting the Secretariat of the Action Platform for Source-to-Sea Management. This provides assurance to the local stakeholders that the project and its activities are intended to have a meaningful impact on plastic pollution.

Selecting a local partner

IUCN Viet Nam was selected as the local cooperating partner because it has strong relationships with national, provincial, and local authorities at the highest levels, built over many years through various collaborations. This provides IUCN with a high level of credibility, which helps secure the interest and engagement of public authorities in project activities. Additionally, it can provide opportunities that were not anticipated during the project formulation stage. In this instance, public officials requested that the project support the development of the environment strategy partly thanks to the relationship that they already had with IUCN and the prestige of source-to-sea expertise that SIWI has built. IUCN was also able to draw upon its existing relationships with local authorities, private sector, and civil society stakeholders to bring a cross-sectoral group into discussions about preventing plastic pollution. IUCN will continue to work in Hoi An and the Vu Gia–Thu Bon River basin and can continue to stimulate interest in and incorporation of source-to-sea perspectives at the municipal and provincial levels.

Engaging academic experts

For this project, a professor from the University of Da Nang – University of Science and Education was engaged to support the project. This provided two key benefits to the project. First, the professor had previously conducted research in Hoi An and was expert in conducting key informant interviews, surveys, and focus groups to collect local perceptions, knowledge, and preferences. Through her previous research she had developed relationships with and garnered the trust of local stakeholders, in particular those who are often under-represented. Her relationships with the informal sector involved in waste collection and recycling and the Women's Union were particularly valuable, as these individuals are a very important part of the plastic waste value chain and yet are often not invited to participate in workshops and capacity development activities. These established relationships helped to facilitate their interest and participation in the process.

The inclusion of the informal sector in the project activities enriched the discussions and contributed important local knowledge of the ways in which solid waste management is working, and not working, in Hoi An. They were also able to contribute concrete, practicable actions that would have immediate and long-term benefits.

The professor also had established a relationship with the individual in the Department of Natural Resources and Environment who was the lead responsible for the development of the environment strategy. This relationship provided an inside track to working with the drafting team of the environment strategy and the opportunity to embed the source-to-sea approach in its development.

The second benefit from engaging a local academic was that, by working with us, she has learned about the source-to-sea approach and its application to preventing plastic pollution, has applied it in the support she gave to the development of the environment strategy, and through this has become an advocate for its use. She has now incorporated aspects of source-to-sea perspectives and methods into her university curriculum, introducing her students to this holistic management approach. During the project time frame, one of her students conducted masters research in which he applied the source-to-sea approach to analysing plastic waste and its management in Hoi An. Linkages with the university also allowed for the support of students who could act as impartial facilitators during the stakeholder workshop. This was useful not just in the facilitation of different voices being heard but also had the added benefit of building sustained local capacity. Through her teaching and her students, the professor will expand the awareness and use of source-to-sea perspectives in Viet Nam.

Developing capacity in local authorities

Like many local authorities, especially in the wake of the global pandemic, Hoi An City faces increased environmental and developmental challenges while having constraints on available resources. Such a situation often demands new and innovative approaches and, in this case, Hoi An City reached out to partners for support in developing its environment strategy.

The support offered by the project team was multi-modal and included technical advice, capacity-building workshops, and guidance in developing the contents of the environment strategy and accompanying monitoring and evaluation plan. A hybrid capacity-development workshop was conducted with city officials taking them through the first three steps of the source-to-sea approach with a focus on solid waste and wastewater management. This allowed participants to improve their understanding of the environmental challenges faced by Hoi An, the stakeholders that need to be involved in planning and taking action, and the existing governance framework. It also permitted them to become more familiar with the source-to-sea approach and understand its value in addressing environmental challenges that require upstream–downstream and cross-sectoral collaboration.

While the focus was on including source-to-sea perspectives within the environment strategy, a secondary aim was to foster strategic approaches that better connect environmental objectives with approved activities while also identifying gaps and conflicts. Such approaches will be increasingly important as local authorities look for opportunities to effectively address multi-sectoral objectives in their planning. Additionally, the project sought to enhance collaboration efforts within the municipality, across departments, and with other sectors or local authorities related to the thematic pillars of the environmental strategy.

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About this publication

This publication captures key lessons learned from the implementation of the project Design and Accountability for Source-to-Sea Action on Plastic funded by the German Federal Ministry of Economic Cooperation and Development (BMZ). Project activities were undertaken in Hoi An, Viet Nam and included incorporation of the source-to-sea approach in the development of a five-year environment strategy and engagement of stakeholders across the plastic waste value chain in workshops to determine priority actions that will lead to preventing plastic pollution.

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About SIWI

SIWI is a leading water institute, focused on water governance and capacity building in order to reach a just, prosperous and sustainable water wise world. It is well-known for its research, knowledge generation, and applied science, which helps to develop policy recommendations and supports the implementation of programmes. In addition, SIWI uses its trusted convening power to facilitate multi-stakeholder dialogues, most evident in its annual event, World Water Week.

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