

Terms of reference – Marine litter prevention through source-to-sea management

Introduction

Marine and riverine litter represents a growing global issue. Waste leakage into waterways and the sea threatens the preservation of biodiversity and affects economic activities such as the fisheries and tourism sectors. Most of marine litter stems from land-based sources in coastal areas but also from inland areas, transported via rivers. Low access to environmentally sound waste collection and treatment is a high priority challenge in terms of marine and riverine litter reduction. Unmanaged waste often ends up being dumped along roads, natural depressions, into drainage systems or canals and rivers. Direct littering at beaches and coasts manifests a lack of public awareness and environmentally sound behavior. Furthermore, waste generation continues to increase, driven by rapid urbanization, economic growth and changing consumption and production patterns. Plastics and microplastics represent a particular concern. Due to its slow degradation into ever-smaller pieces, they progressively accumulate in riverine, coastal and marine ecosystems and spread throughout the food chain.

Reducing marine and riverine litter requires governance approaches that involve several stakeholders, sectors and geographical entities. The ‘source-to-sea approach’ could provide a useful conceptual framework to address this issue. The approach outlined by Granit et al. (2017a) calls for strengthening cooperation within a ‘source-to-sea’ system, including rivers, lakes, aquifers, deltas, estuaries, coastlines and the open ocean. The conceptual approach suggests assessing the key flows of water, sediments, pollutants, biota, materials and ecosystem services. It involves identifying specific issues, defining the right scale of intervention, establishing a governance baseline in order to propose a situation-specific theory of change. The conceptual framework also refers to different management approaches such as sustainable forest management, sustainable land management, integrated water resources management, integrated coastal management and fisheries management. However, the elaborated concept does not include integrated solid waste management and does not provide a specific guidance for marine litter prevention.

In 2014, the *Action Platform for Source-to-Sea Management (S2S Platform)* was established at the World Water Week in Stockholm. It serves as a “multi-stakeholder initiative that helps freshwater, coastal and marine experts to contribute to global knowledge generation on source-to-sea interconnections, connect and engage in collaborative projects, promote best practices, and take collaborative action to improve the management of land, water, coastal and marine linkages” (www.siwi.org/source-to-sea). Since its foundation, the S2S Platform has produced the mentioned conceptual framework on source-to-sea management, a related more detailed GEF guidance paper on the conceptual approach (Granit et al. 2017b) as well as an analysis of the interlinkages between Sustainable Development Goals (SDG) 6 on water quality and SDG 14 on sustainable oceans (Berggren and Liss Lymer 2016).

This consultancy concerns producing a report (25-30 pages) on how to use the source-to-sea approach for marine litter prevention. The elaborated concept should facilitate further project development by members of the S2S Platform. The Consultant will have the responsibility to compile the different parts and finalize the full report.

SIWI will contribute to chapters related to the managing plastic leakage, governance opportunities and intervention strategies. SIWI will also organize a review process of draft outputs through the members of the Action Platform for Source-to-Sea Management (S2S Platform) and an opportunity to present the results of report at a S2S Platform event. The overall activity is funded by the GIZ and the UNDP-SIWI Water Governance Facility.

Consultant deliverables:

- 1) A written **report** of 25 to 30 pages (12500-17000 words) on the question how to use the source-to-sea approach for marine litter prevention. Parts of the report will be written by SIWI. See below for the report outline and respective contributions by the Consultant and SIWI above.
- 2) Selection of 3-4 case studies, the majority of which would be from low- and -middle-income countries, (min 400 words each) to be included in the report. SIWI can assist in facilitating the selection process.
- 3) A power point presentation about the report, with 1 slide per chapter + 1 slide per case study presented at a S2S meeting/event arranged by SIWI.
- 4) Draft key messages for practitioners and policy makers, respectively, based on the report.

The report will cover the following aspects:

- **Introduction**
 - including purpose and goals of the report, making reference to the S2S conceptual framework and the key flows the report is targeting
- **The nature of plastic leakage from river basins**
 - presenting available knowledge on sources, drivers and pressures with key references, identifying potential issues such as increasing plastic waste amounts, lack of access to waste collection and limited financial resources in municipalities and describing opportunities such as reducing the costs for clean-ups, enhancing tourism and increasing resource recovery
- **The key players**
 - identifying the key stakeholders, their interests, modes of organization and involvement in policy/other processes. E.g. municipalities along a river and at the coast (waste management, water management and sanitation authorities), scientific institutions, NGOs, hydropower plants, fishermen, tourism operators, plastics and packaging industries, waste management operators / public utility companies, national and regional government entities, general public etc.
- **Managing plastic leakage**
 - identifying the interconnections / required elements of integrated solid waste management (ISWM), integrated water resources management (IWRM), integrated coastal management (ICM). E.g. for ISWM: extended producer responsibility mechanisms for packaging waste, capacity development for waste management governance, investment in infrastructure (bins, transport vehicles, landfills, recycling facilities etc.
- **Monitoring plastic leakage**
 - reviewing and describing suitable approaches for monitoring in rivers

- **Governance opportunities**
 - identifying the general governance processes important to reduce plastic leakage from river basins, defining institutional processes and structures that should be created or strengthened, outlining approaches for coordination between different sectors and identifying what kinds of ‘strengths and weaknesses’ need to be considered in the sense of a governance assessment/ ‘governance baseline’, e.g. capacity for cross-sectoral coordination, capacity to regulate relevant consumption/production patterns etc.
- **Learning by doing**
 - presenting lessons from a selection of cases (3-4)
- **Intervention strategies to reduce plastic leakage from river basins**
 - defining determining factors for the right geographical scale for designing interventions. This could range from several municipalities along a river basin or coast or only individual municipalities / parts of a river / parts of a coastline depending on context in terms of plastic/microplastic sources and distribution and existing governance and management frameworks. Consider transboundary interconnections of rivers and ocean streams. Consider the related right level of governance and management arrangements and opportunities to connect to existing structures.
 - identifying potential goals, e.g. reduction of x% of plastic leakage from land into canals, rivers and the ocean in year y.
 - identifying suitable intervention strategies and outputs while specifying the 4 orders of outcome (Granit et al., 2017, see below) for reduced plastic leakage into waterways and the sea:
 - 1) ‘Creation of the enabling conditions for a source-to-sea governance initiative’: e.g. conduct a multi-stakeholder dialogue; modify responsibilities and processes for elaborating and implementing sectoral strategies; draft, adopt and implement legislation and policy incentives; raise public awareness.
 - 2) ‘Changed behavior of resource users and key institutions’: e.g. enhanced plastic waste collection, different packaging design.
 - 3) ‘Achievement of desired changes in societal and environmental conditions’: e.g. less plastic waste enters waterways and the sea / can be found in water, sediments, biota in rivers and the ocean within a given geographical area.
 - 4) ‘A more sustainable and resilient source-to-sea system’: e.g. reduced risk for biodiversity.
- **Conclusions**

Timeline:

<i>Deadline</i>	<i>Deliverable</i>
1 July 2018	Revised outline, key content for each chapter and selection of case studies
15 September 2018	Initial draft report, including contributions from SIWI
5 October 2018	First draft report, addressing comments from SIWI and GIZ
5- 31 October 2018	Review process with S2S Platform members

31 January 2019	Final draft report, powerpoint presentation, and draft key messages for practitioners and policy makers, respectively, based on the report.
December-May 2019	Presentation of results at a S2S event at international conference (to be determined) – travel to be covered by SIWI

Remuneration:

The ceiling amount for this consultancy is Euro 20,000.

Expected competences of the consultant:

Education

- Masters' Degree in relevant field with at least ten (10) years' experience.

Functional Competencies:

- Proven experience and understanding of different aspects of waste management that are relevant to plastic leakage / marine litter management;
- Experience of working with authorities in charge of waste management issues, preferably in low- and middle-income countries
- Experience with marine litter issues, leakage of waste into drainage systems and waterways
- Experience with applying waste flow diagrams
- Ability to adapt and develop existing concepts for specific purposes:
- Strong research and excellent writing skills in English;
- Demonstrated ability as lead author for technical publications; and
- Demonstrated ability to meet deadlines and work under pressure.

Behavioral Competencies:

- Ability to be flexible and respond to changes to text/layout as part of the review and feedback process;
- Strong interpersonal skills, able to communicate and work with diverse people;
- Participate effectively in team-based, information-sharing environment, collaborating and cooperating with others;
- Focus on impact and results for the client.

Tendering

SIWI must have received the tender by **31 May 2018**.

The tender must contain the following information:

- A description of your organisation and previous relevant assignments
- Comments/suggestions on the herewith draft outline story template
- A description of the supplies/services offered;
- All prices (net of VAT), and payment terms;
- Estimated delivery time;
- ~~Draft agreement;~~

- Name and contact information of point of contact;