

Invitation to tender:
**Quantitative and qualitative assessment characterizing plastic solid waste flows
in the Lake Hawassa basin region from “Source-to-lake”**

The deadline for receipt of tenders is: **19 August 2019**

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Stockholm International Water Institute

SIWI is a knowledge organisation using its expertise and convening power to strengthen water governance for a just, prosperous and sustainable future. SIWI arranges the annual World Water Week in Stockholm.

SIWI is duly constituted as a foundation in Sweden.

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Background and scope

Source-to-sea management considers the entire source-to-sea system – stressing upstream and downstream environmental, social and economic linkages and stimulating coordination across sectors and segments. Source-to-sea management focusses on six key flows. These six source-to-sea flows – water, sediment, pollutants, biota, materials and ecosystem services – connect segments along the source-to-sea continuum at different spatial scales. All flows have natural ranges of variation that biodiversity and human activities have adapted to. Variation outside of these natural ranges can disrupt individual species’ life cycles, impact human health, alter ecosystems and disrupt social and economic systems.

The pilots will implement the first three steps of the source-to-sea approach as described in [Implementing the Source-to-Sea Approach: A Guide for Practitioners](#).

This tender is for a study to support the first step of the source-to-sea approach: the characterization of a key source-to-sea flow in the Lake Hawassa basin in Ethiopia with focus on solid waste flows, and specifically plastics. The purpose of the study is to provide insights into the sources, quantities and transport pathways for plastics to enter waterways and be delivered to riverine, wetland and lake environments and the governance, behaviours, management and finance that are contributing to this pollution issue. The study will be used to increase stakeholder awareness and to provide a basis

for decision makers in considering steps for self-organisation and collective action to address plastic pollution in Lake Hawassa basin.

While not a marine environment, Lake Hawassa has similar qualities to seas and oceans. It is the singular receiving body for all water flows draining the Hawassa sub basin and land-based activities surrounding it. However, due to the small lake area and lack of currents, the connection between upstream activities and downstream impacts will be highlighted. Lake Hawassa is the smallest among the eight Major Rift Valley Lakes situated in the Southern regional state (SNNP) of Ethiopia, 275 km south of the capital city Addis Ababa. The Hawassa sub-basin (1,403 km²) with a lake area of approximately 90 km² with a maximum depth of 22 m subject to seasonal variation. Lake Hawassa has no effluent rivers due to its closed system nature but has a groundwater outflow. Lake Hawassa is situated nearby Hawassa, a fast-growing urban centre of 350,000 people (according to the last census). Lake water is used for domestic, irrigation and recreational purposes and fishery is one of the main sources of income for the local communities. However, the fast rate of the urbanisation, population growth and associated commercial, agricultural and industrial practices are contributing water pollution and environmental degradation.

The outputs of the study will be used to strengthen understanding of the issue of land-based plastic pollution in the Lake Hawassa basin amongst local stakeholders and will be the basis for engaging with local authorities in developing a source-to-sea approach to managing solid waste for improved social, economic and environmental outcomes.

Requirements on the services

The study to characterize solid waste flows from 'source-to-lake' in the Lake Hawassa basin should include the following within the assessment:

- Estimation of quantities, types and behaviour of plastic entering riverine, wetland and lake environments.
- Geo-locations of sources of plastic and the transport pathways to rivers, wetlands and the lake and their relative contribution to plastic pollution. Analysis and description of main sources of solid waste pollution flows, specifically plastic; and the nature and causes of those pollution flows from different sources.
- Analysis and description of behaviours, management, operations and finance that lead to plastic leakage; this should include identifying the locations where failure to control plastic waste is occurring.
- Analysis and description of the environmental, economic and social impacts of plastic pollution. This should include description of sectors or communities impacted by the plastic pollution, analysis of how they are impacted and identification of the locations of impacts.
- Recommendations on priority actions to improve management from 'source-to-lake' and reduce plastic pollution in the basin.

The assessment will rely on international best practice for the methodology used and will require local field work to ground-truth all outputs. Inputs to the assessment will include interviews of local stakeholders to complement the quantitative assessment.

Requirements on the tenderer

The tenderer is expected to have knowledge and experience in international best practice for quantitative and qualitative assessment of solid waste flows with a focus on plastic waste and the ability to apply these methods and approaches to the local context in the Lake Hawassa basin. This may best be met by a team of consultants with different competencies.

The tenderer **should have the following competences:**

Functional Competencies:

- Demonstrated experience in applying international best practice in assessing solid waste management specifically plastic leakage, the sources, quantities, transport pathways and causes of plastic pollution in developing countries. Experience with marine litter issues, leakage of waste into drainage systems and waterways.
- Experience with applying waste flow diagrams.
- Knowledge of local (Ethiopia) social, economic, environmental and governance context that enables meaningful assessment of causes of and solutions to plastic leakage in river basins.
- Capacity for local mission(s) to conduct field work as part of the solid waste (plastic) flows assessment and to present findings to stakeholders.
- Technical proficiency in field work and ability to garner information locally through interviews.
- Strong project management, research, report writing and presentation skills, in English. Proficiency in local languages preferred.
- Proven experience and understanding of different aspects of waste management that are relevant to plastic leakage / marine litter management.
- Experience of working with local authorities on solid waste management issues.
- Ability to adapt and develop existing concepts for specific purposes.
- Demonstrated ability as lead author for technical publications.
- Demonstrated ability to meet deadlines and work under pressure.

Behavioural 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.

Education:

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

Required deliverables of the tender are as follows:

1. A written report (25-40 pages, plus annexes) characterizing solid waste plastic flows in the Lake Hawassa basin from 'source-to-lake'
2. An executive summary of the report (2-4 pages) of key findings and conclusions suitable for decision makers.
3. Delivery of a power point presentation of findings and recommendations to local stakeholders.
4. Documentation of interviews of local stakeholders to be used as part of overall project documentation and communications.

Deadline	Deliverable(s)
09 September	Work plan and annotated outline of report
04 October	Draft report
Date to be determined	Presentation of findings to stakeholders
30 October	Completed final report and executive summary

The tender **must** contain the following information:

- A description of the services offered.
- Details regarding the methodology that would be applied to perform this study. This is expected to include literature review of available data and studies performed in the area, interviews, and field surveys.
- Work plan for delivery of the assignment.
- CVs, qualifications and roles of consultant(s) delivering the assignment.
- Proposed outline (annotated table of contents) for final report.
- A description of your organisation.
- Costs (net of VAT).
- Name and contact information of point of contact.

Remuneration

The maximum amount for this assignment is 14,000 EUR (inclusive VAT, exclusive of travel costs, travel costs reimbursed based on documentation and with prior approval).

Award criteria

The contract will be awarded based on the following criteria:

- Quality and feasibility of proposed methodology and deliverables
- Qualifications and expertise of candidates
- Timeframe for project delivery
- Value for cost

Tenderers are encouraged to include within their proposal partners or members that are based in or have experience working in Ethiopia for this assignment.

Tendering

SIWI must have received the tender by **19 August 2019**.

The tender must be submitted to the following email address:

Josh.weinberg@siwi.org

The subject of the email should be Invitation for tenders: “Lake Hawassa solid waste Source-to-sea Study”

Questions regarding the tender may be submitted until 5th August to Cryton Zazu at: cryton.zazu@siwi.org

Processing of personal data

SIWI will process personal data included in tender documents and communications. For information about SIWI’s processing of personal data, please use the following link:

[Processing of personal data](#)