# **Plastics.**



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## ABSTRACT

The plastics workstream has an objective which is to provide scientists, water authorities and other stakeholders with current knowledge how plastic in aquatic systems can be assessed and monitored, which options for preventive and counteractive measures may be available, and which obstacles will be met and hopefully counteracted during their implementation.

In June 2021, MONITORING PLASTICS IN RIVERS AND LAKES: Guidelines for the Harmonization of Methodologies were launched by UNEP in close collaboration with the GPML. The guidelines contain the most current procedures for monitoring and analyzing plastic content in rivers, lakes, reservoirs and water/wastewater treatment plants. The plastics workstream aims to pilot these freshwater plastics monitoring guidelines for the World Water Quality Assessment in Europe, Africa and Asia.

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# CONTACT

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#### **UPDATE ON PROGRESS**

In 2021, the following activities have been conducted by the workstream:

- Final edits and publication of the Guidelines and a technical summary for policymakers
- Webinar to launch the Guidelines
- Promotion of Guidelines in meetings and conferences
- Inclusion of remote sensing experts in the workstream team
- Participation in "Eyes on Plastic" workshop
  Consultation with marine litter specialists
- Consultation with marine litter specialists
   Application for seed funding to conduct pilot studies in
- geographically and socio-politically different places
- Connection to other WWQA workstreams, e.g., Africa use cases
- Preparation for surveys, workshops and pilot field studies for implementing the guidelines

### ACHIEVEMENTS

Until the end of 2021 the workstream achieved:

- Publication of <u>MONITORING PLASTICS IN RIVERS AND LAKES:</u> <u>Guidelines for the Harmonization of Methodologies</u>
- Seed funding proposal approved
- Stakeholder analysis and first surveys conducted (Table 1)
- Virtual mini-workshop for Rhine basin (Figure 1)
- On-site workshop in Accra, Ghana (Figure 2) including
- monitoring campaign (Figures 3 and 4) successfully

conducted

Figure 3. Plastic litter in Accra

Lack of technical equipment

Quantity to be monitored

Compatibility of the guidelines

Absence of government directives

Table 1. Hinderances to monitor plastics in freshwaters

Theft of equipment Lack of skilled personnel

Funding

Accessibility





Figure 2. Accra workshop articipants (around 50 in total).

Figure 4. Sampling sites in Accra

Ghana

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Lower Rhine

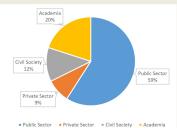
Vietnam

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The plastics workstream hopes to achieve the following in the next 6 months:

- Make the Guidelines more popular
- Evaluate on-site workshops in the Rhine basin and in Accra, Ghana
- Evaluate monitoring data obtained in Accra
- · Prepare on-site workshop and pilot monitoring at the
- Mekong River, Cambodia
- Conduct pre-workshop stakeholder survey in Cambodia
- Evaluate monitoring data obtained at Mekong River
- Prepare for online workshop in Uganda
- Update stakeholder analysis (Chart 1)



= rubic sector = rivate sector = civil society = Academ

Chart 1. Stakeholder composition across all pilot sites, December 2021.

#### WORKSHOP LEARNING ACTIVITIES

On-site workshops comprise the following elements:

- Welcome and icebreaker
- Presentation of the Guidelines
- Sessions on latest freshwater plastics science
- Interactive sessions on local plastic pollution
  Training on different plastic monitoring methods
- Hands-on training in the field (Figure 5)
- Design assessment



Figure 5. Sampling and observation of litter from bridge

#### **GENERAL STRATEGY**

- Aim for variety in (1) river/lake characteristics, (2) social
- context, (3) limitations
- Measurements of (1) floating plastic, (2) plastic on banks/shores, and (3) plastic on land
- Synthesize general strategy to develop freshwater plastics monitoring plan
- Long-term goals beyond 2022: consideration of extreme events; biota sampling

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