



Training Programme for the Waste Flow Diagram

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Draft



In Collaboration with:



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1. Training program

The present document details the Training Programme developed for trainers of the Waste Flow Diagram, as part of the GIZ project “Waste Flow Diagram Application Support and Online Portal”. In particular, it defines the proposed structure and requirement for the capacitation of the sessions.

Two trainings have been developed, for two target audiences:

- Target Group A (TG-A) is composed of **consultants** that want to carry a field implementation of the WFD. The training is designed to support a WFD trainer deliver the course **over a full day** (8 hours), for a **maximum capacity of 30 participants**. It is composed of 14 sessions, aiming to provide a general understanding of the WFD to the participants (objectives, general approach of the model regarding quantification of plastic leakages and fate of plastic pollution), preparing the teams to collect this information on the field (quantitative information needed for the tool, the preparation needed for baseline data collection, the use of qualitative field observations for leakage quantification and fate analysis within the WFD) and computing the results to present to clients. All materials have been designed to support the trainer in delivering a smooth course, covering all the aspects of the WFD with confidence. The training material was developed based on two years of field experience by a team of experts, and provides a complete overview of the WFD tool, with a mix of theory and practical experience. The trainers are free to adjust the materials based on their experience and audience’s needs. The course is suitable for participants with all levels of knowledge of the WFD.
- Target Group B (TG-B) encompasses **municipal officers and decision-makers**. The focuses on raising awareness on the plastic pollution problem and how this plastic pollution can (and should) be measured. It then provides a general understanding of the WFD on how it can help prioritize actions and be used as a monitoring tool. The materials developed for TG-B are short videos available freely on the internet; they can therefore act as supporting material for other trainings and courses.

The format and dissemination of the trainings are designed specifically for each target group. For TG-A, the materials’ format comprises of:

- **PowerPoint presentations:** For each session, a PowerPoint presentation will be the main support for the trainer. Each presentation was built with guidance and advice in the “Notes” section of each slide for the trainer to refer to. Exercises and polls are also featured in the sessions to help the trainer engage with their audience and enhance the participants’ learning. All the presentations also feature a final slide with a few questions, to stir discussion amongst the participants and ensure their efficient learning.
- **Videos:** New videos have been produced as part of this Training Programme, that aim to complement the set of existing videos on the WFD. The videos that were produced for the launch of the WFD in 2020 are freely accessible on the internet (see list in Section 2.2).
- **Supporting Word documents:** Supplementary materials to enhance learning are available for some sessions.

For TG-B, **videos** will be the main format of the training.

Detailed information for each session is presented in the section below.

1.1. Target Group – A

Session 1: Introduction to the WFD	
Objectives	<ul style="list-style-type: none"> - Introduce the plastic problem and why it needs an assessment tool - Understand the basic principles and approach of the WFD tool
Main contents	<ul style="list-style-type: none"> - Objectives of the WFD - General approach of the WFD model - How the WFD quantifies plastic leakages - How the WFD computes the fate of plastic pollution - Synthesis of the different steps for the implementation of the WFD - Rapid presentation of the WFD Excel tool - Q&A session
Format	<ul style="list-style-type: none"> - PowerPoint - Video - Discussion - Q&A
Duration	<ul style="list-style-type: none"> - 20mn

Session 2: Different Tools to Measure Plastic Pollution	
Objectives	<ul style="list-style-type: none"> - Introduce the different tools that can measure plastic pollution - Highlight differences between the tools and specifically how they differ to WFD
Main contents	<ul style="list-style-type: none"> - Description of the tools - Comparative table between the tools
Format	<ul style="list-style-type: none"> - PowerPoint - Video - Discussion - Q&A
Duration	<ul style="list-style-type: none"> - 20mn

Session 3: Preparing the WFD assessment field work	
Objectives	<ul style="list-style-type: none"> - Know the steps to prepare the WFD assessment - Know the activities to perform for the WFD assessment - Understand the data collection process - Prepare the field observations
Main contents	<ul style="list-style-type: none"> - Details on preparing the WFD assessment fieldwork - Data requirements and support material collection of information on the field (leakage influencers, fate factors) - Detail the needs of qualitative information for the WFD and how to obtain it (field observations) - Discuss potential difficulties on ongoing quantitative data collection
Format	<ul style="list-style-type: none"> - PowerPoint - Interactive Discussion

Session 3: Preparing the WFD assessment field work	
	- Q&A
Supporting materials	- Checklist (Word document) of the preparation steps
Duration	20mn

Session 4: Data requirements and collection – Introduction	
Objectives	- Understand the data needed to complete the WFD assessment.
Main contents	- Introduce the baseline information required to apply the WFD - Show how the WFD uses this information to calculate plastic leakages
Format	- PowerPoint - Discussion - Q&A
Duration	20mn

Session 5: Data requirements and collection – Leakage influencers	
Objectives	- Know which quantitative and qualitative information the WFD rely on - Prepare for data collection
Main contents	- Describe the leakage influencers for each stage of the SWM system - Understand the ratings of leakage factors - Provide tips and recommendations for the field work - Discuss special cases : distinct waste management systems in a same city, variations in observations throughout the city, etc.
Format	- PowerPoint - Discussion - Q&A
Duration	20mn

Session 6: Data requirements and collection – Fate factors	
Objectives	- Understand the different fates of plastic leakage - How the WFD calculates plastic pollution per fate - Computing the contribution of each fate for the total plastic leakage
Main contents	- Focus on the leakage influencers - Focus on the fate of plastic pollution
Format	- PowerPoint - Discussion - Q&A
Supporting materials	- Checklist (Word document) of data requirements
Duration	20mn

Session 7: EXERCISE - Assessing leakage factors and fates through observations	
Objectives	<ul style="list-style-type: none"> - Understand how to rate the leakage influencers and fate through real-life examples - Become familiar with some of the leakage influencers - Highlight the importance of the expert work to assess the factors for leakage and fate
Main contents	<ul style="list-style-type: none"> - Set of pictures of each leakage influencer that participants have to rate - Discuss why and how the results differ
Format	<ul style="list-style-type: none"> - PowerPoint - Discussion with interactive voting - Q&A
Supporting materials	<ul style="list-style-type: none"> - To be done by trainer: interactive voting (e.g. Menti, MS Teams voting polls, etc.)
Duration	30mn

Session 8: The WFD Excel Tool	
Objectives	<ul style="list-style-type: none"> - Understand the WFD Excel Tool and how to enter data - Understand how to generate and analyze results with the WFD tool - Discuss potential difficulties during field work
Main contents	<ul style="list-style-type: none"> - Detailed presentation of the Excel tool - The steps to introduce data and generate results (using information of pilot area) - The different tables showing the WFD results - Generating a Sankey diagram / interpretation
Format	<ul style="list-style-type: none"> - PowerPoint - WFD Excel Tool - Discussion - Q&A
Duration	30mn

Session 9: Case Study presentation	
Objectives	<ul style="list-style-type: none"> - See a full case study and understand how all the steps in the process were conducted
Main contents	<ul style="list-style-type: none"> - Presentation of a case study - Detailed run through the steps to generate results - Analysis of the results of the case study - Discussion on key interventions based on the results
Format	<ul style="list-style-type: none"> - PowerPoint - Discussion - Q&A
Duration	30mn

Session 10: Using the Online Portal	
Objectives	-

Session 10: Using the Online Portal	
Main contents	-
Format	- PowerPoint - Q&A
Duration	

Session 11: Using the Scenario tool	
Objectives	- Introduction to the scenario feature of the WFD excel sheet - Understand the purposes of the feature and its different uses (designing interventions and scaling up) - Understand how to run it - Understand the benefits and limitations of the tool
Main contents	- Presentation of the tool based on the Case study (Session 9) - "Live" demonstration of the tool
Format	- PPT - Interactive discussion - Q&A
Duration	30 mn

Session 12: Presenting and explaining the results to clients	
Objectives	- Know which results to present to clients - Know how to show the visualization of the results effectively - Reporting on the WFD field implementation
Main contents	- Interactive discussion on what participants think should be included in the validation workshop presentation and report Validation workshop: - Example on showing the results effectively to clients - How to efficiently explain the results Report: - Present template of report - Key aspects to feature in the report - Documentation and georeferencing of field mission
Format	- PowerPoint - Interactive discussion - Presentation of templates - Q&A
Support materials	- Validation workshop agenda template (PowerPoint) - Report template (word doc)
Duration	30 mn

Session 13: How to use the WFD results	
Objectives	- Understand how to interpret the WFD results and derive key interventions

Session 13: How to use the WFD results	
Main contents	<ul style="list-style-type: none"> - Interactive discussion on what participants believe key interventions might be based on case study results - Deriving key interventions that take into account the overall SWM system
Format	<ul style="list-style-type: none"> - PowerPoint - Interactive discussion - Q&A
Duration	30 mn

Session 14: EXERCISE: Conducting a WFD	
Objectives	<ul style="list-style-type: none"> - Perform an entire WFD case study - Allow participants to run and present the WFD results from the case study (14a) - Discuss difficulties and understand how to overcome them - Discuss divergences in results between the groups - Become more familiar with the Excel tool
Main contents	<ul style="list-style-type: none"> - Case study with baseline information - Participants to form groups and perform the WFD assessment based on complementary information - Participants to prepare a presentation and present their results - Discussion on challenges experiences
Format	<ul style="list-style-type: none"> - PowerPoint - WFD Excel Tool - Presentation by participants - Discussion - Q&A
Supporting materials	<ul style="list-style-type: none"> - WFD Case study summary for participants (Word doc, can be amended as the trainer sees fit) - Photographs of Leakage influencers / Fates (Word document, can be amended as the trainer sees fit) - Guidance for trainer (Word doc)
Duration	2 hours (includes 10mn presentation per group)

Target-Group - B

Session 1: Plastic Pollution – Causes and effects	
Objectives	<ul style="list-style-type: none"> - Understand the causes of plastic pollution and its effects on the environment and people - Understand how the WFD can help reduce plastic pollution
Main contents	<ul style="list-style-type: none"> - SWM system as a source of marine litter - Importance of data collection for designing key interventions
Format	- Video
Supporting materials	-
Duration	5 mn

Session 2: The Waste Flow Diagram – a simple way to measure plastic Pollution	
Objectives	- Understand how the WFD can help reduce plastic pollution
Main contents	<ul style="list-style-type: none"> - How the WFD can help improve SWM systems - The benefits of the WFD
Format	- Video
Supporting materials	-
Duration	5 mn

Session 3: WFD Case study	
Objectives	- Understand how the WFD was applied and the results it generated
Main contents	<ul style="list-style-type: none"> - Presentation of a baseline situation - How the WFD led to improvements in the local situation
Format	- Video
Supporting materials	-
Duration	5 mn

2. Resources & Requirements

This section summarises the requirements from the participants as they join the training for TG-A, and the resources that will be available to them.

2.1. Digital platform

While the training would ideally need to be performed in person, digital platforms such as Zoom or MS Teams could be used for the delivery of the training; it is up to the trainer to decide which platform to use based on their context. The platform will need to provide the capability to break the participants into group for the presentation exercise (Session 14). The presentations will be mainly based on Powerpoint presentations, live sharing of the tool itself (in Excel) or other resource material (videos).

2.2. Minimal requirements (equipment and resource material)

Ideally, participants to the training in person will need a computer with Office installed (specifically *PowerPoint*), that will be used for the presentation exercise (Session 14).

The main requirement for the training modules will be for the participant to have previously downloaded and accessed the reading / video material, which will be shared before the start of the training. Providing access to this material before the training sessions will give the opportunity for participants to start familiarizing with different aspects of the WFD tool before initiating the proper training activities, which will optimize the time of the training sessions.

In addition to the materials mentioned in the table below, a common **reading list/further resources** will be made available.

WFD Resources	
Videos	<ul style="list-style-type: none"> - Video#1 – Introduction to the WFD (English with Youtube subtitles available) - https://www.youtube.com/watch?v=g_iLS2IMpqc - Video#2 – Applying the WFD (English with Youtube subtitles available) - https://www.youtube.com/watch?v=dCu6YaUANbY - Video#3 - Tutorial of the WFD Excel tool (English only) - https://vimeo.com/593133322
Reading materials	<ul style="list-style-type: none"> - WFD User's manual (https://plasticpollution.leeds.ac.uk/toolkits/wfd/) - WFD Excel tool (https://plasticpollution.leeds.ac.uk/toolkits/wfd/)

3. Summary of training materials

This section summarised the training materials for each target group.

3.1. TG-A

<p>PowerPoints</p>	<p>Session 1: Introduction to the WFD</p> <p>Session 2: The different tools to measure plastic pollution</p> <p>Session 3: Preparing the WFD assessment fieldwork</p> <p>Session 4: Data requirements and collection – Introduction</p> <p>Session 5: Data requirements and collection – Leakage influencers</p> <p>Session 6: Data requirements and collection – Fate factors</p> <p>Session 7: Exercise: Assessing the leakage factors and fates through observations</p> <p>Session 8: Understanding the WFD Excel tool</p> <p>Session 9: Case study presentation</p> <p>Session 10: The WFD online portal</p> <p>Session 11: Using the scenario tool</p> <p>Session 12: Presenting the results to clients</p> <p>Session 13: How to use the WFD Results</p> <p>Session 14: Exercise: Conducting a WFD</p>
<p>Videos</p>	<p>Introduction to the WFD Training (To be filmed at Eawag in June / 20-30mn)</p> <p>Introduction to the WFD</p> <p>Using the Online Portal (TBC)</p>
<p>Supporting materials</p>	<p>Checklist for preparation of WFD field assessment (Word document)</p> <p>Interview for Municipal officers (Word document)</p> <p>Interview of disposal site operators (Word document)</p> <p>Checklist for observing plastic leakage fates (Word document)</p> <p>Photographs of leakage influencers and fates (Word document)</p> <p>WFD Report template (Word document)</p> <p>Validation workshop agenda (Word document & PowerPoint)</p> <p>Case study instructions for participants (Word document)</p> <p>Case study instructions for trainer (Word document)</p> <p>Guidance for trainer (Word document)</p> <p>List of further references/reading (Word document & PowerPoint)</p> <p>FAQ (Word document)</p>

3.2. TG-B

Videos (to be developed)	Plastic Pollution – Causes and effects The WFD – a simple way to measure plastic pollution WFD case study
Supporting materials	