

# Report on the integration of cross-cutting issues in the Full scale exercise

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# Summary

## Why cross-cutting issues in an exercise?

The PPRD East 3 aims to integrate gender, human rights, and environmental perspectives as cross-cutting issues (CCIs) into all phases and parts of the programme. This is key to ensure the programme contributes to strengthening capacities in disaster risk management (DRM) systems in a way that enhances sustainability and the resilience of the society as a whole, leaving no one behind. It is also about do no harm, as a minimum in the work. The work is aligned with global and EU frameworks such as the Sendai Framework, Agenda 2030, Paris agreement and European Framework for DRR.

In the full scale exercise (FSX) TbiEx2023, the programme applied a systematic approach to integrate CCIs into the planning, implementation, and lessons learned of the exercise. The overall objective (CCI objective) was formulated: *Gender, human rights and environmental issues were integrated in the planning, implementation and evaluation of the Full Scale Exercise.* The PPRD East 3 Checklist for integrating CCIs in training and exercises constituted the key planning document and the starting point to develop the approach. Five focus areas were identified to realise the objective.

- 1) Promote diverse participation and broad representation of stakeholders
- 2) Measure and minimise the environmental footprint of the exercise
- 3) Promote that all participants are safe and can make use of the training opportunity on equal terms
- 4) Include relevant CCI aspects in the scenario and events/injects.
- 5) Assess relevant CCI aspects in the evaluation of the exercise and communicate our results.

## What did we do?

While everyone involved in the FSX had an important role to play in realising the CCI objective, the two PPRD advisors for gender & human rights and environment have been members in the exercise planning team since the start. Actions have included to strengthen the capacity of the team and other key staff/actors involved in the exercise e.g. local coordinators, evaluators and staff in the host organisation, to practically integrate CCIs in their work. This has been done by providing strategic and technical advice, develop materials, tools and processes, provide input on material and organise training opportunities.

## Key conclusions and recommendations

The integration of CCIs into the FSX was a new approach and the exercise has been breaking new grounds. First important steps have been taken to establish a strategic and practical approach to apply CCIs in exercises, along with new methods and tools for this purpose. Future exercises should build upon this work and developed the approach further by considering the following key recommendations:



**Include the integration** of CCIs in the terms of reference for exercises.



**Capacity building** activities should target in-country recipients.



**Invitation and dialogue** should target a broad representation of actors.



Adopt targeted measures to **promote women's equal participation** in exercises.



Measure and minimize the **environmental footprint** from exercises.

# Introduction

The PPRD East 3 aims to integrate gender, human rights, and environmental perspectives as cross-cutting issues (CCIs) into all phases and parts of the programme. This is key to ensure the programme contributes to strengthening capacities in disaster risk management (DRM) systems in a way that enhances sustainability and the resilience of the society as a whole, leaving no one behind. It is also about do no harm, as a minimum of the work.<sup>1</sup> All of this is aligned with global frameworks such as the Sendai Framework, Agenda 2030, Paris agreement on climate change and European Framework for DRR.

## Objective and focus areas for integrating CCIs in the exercise

In the full scale exercise (FSX), the programme has applied a systematic approach to integrate CCIs into the planning, implementation, and lessons learned of the exercise. The PPRD Checklist for integrating CCIs in training and exercises<sup>2</sup> constituted the key planning document and this was the starting point to develop the approach and focus areas.

**The overall objective for integrating CCIs in the FSX** was formulated: *Gender, human rights and environmental issues were integrated in the planning, implementation and evaluation of the Full Scale Exercise*

### **To realise the objective, five focus areas were identified and guided the work;**

- 1 Promote diverse participation and broad representation of stakeholders
- 2 Measure and minimise the environmental footprint of the exercise
- 3 Promote that all participants are safe and can make use of the training opportunity on equal terms
- 4 Include relevant gender, human rights and environmental aspects in the scenario and events/injects.
- 5 Assess relevant gender, human rights and environmental aspects in the evaluation of the exercise and communicate our results.

## The process and working methods

While everyone involved in the FSX have an important role to play in realising the formulated objective, the two PPRD advisors for gender & human rights and environment (CCI advisors) have had a key role. They were part of the exercise planning team since the start and have supported the whole planning process of the exercise. Tasks have included to strengthen the capacity of the team and other staff involved in the exercise e.g. local coordinators, evaluators and staff in the host organisation, to practically integrate CCIs in their work. This has been done by providing strategic and technical advice, develop materials, tools and processes, provide input on material and organise training opportunities. All work has been carried out remotely, including online participation in the Midterm Planning Conference (MPC) and Final Planning conference (FPC), except for the lessons learned meeting in which the Gender Advisor participated in person.

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<sup>1</sup> For more information on how the PPRD East 3 is applying CCIs in the programme, please view the [PPRD East 3 Practical Guidelines for integrating gender, human rights and environmental issues in Disaster Risk Management](#).

<sup>2</sup> Available in Annex 1: PPRD Checklist for integrating CCIs in training and exercises

# Result and effects of the work

To measure the results of the integration of CCI in the FSX, a number of indicators<sup>3</sup> with specified targets were identified before the exercise. In this section, we will look at the results and effects of our work for each of the five focus areas by looking at the formulated indicators for each area.

## 1. Promote diverse participation and broad representation of stakeholders

The promotion of diverse participation in the exercise was at the agenda from the start of the planning of the exercise. Main focus was to promote female participation since in general, less women participate in exercises within the sector. The PPRD team leader and Senior Exercise Expert were encouraged to use their space for dialogue with the partner countries to raise the issue.

Among participants in the FSX, 24 were women and 292 men. The low number of women reflects the fact that the vast majority of participants in the exercise were deployed fire fighters, which were all male. This was expected since in the partner countries, this occupation is either legally only allowed for men, or perceived as a male domain. However, in the deployed Georgian medical team, almost 50% of participants were women (17). More women were also present among participating non-operational/administrative staff. In the exercise planning team, 13 of the members were women and 14 men. Some of the key leading positions were also held by women, e.g. the Excon Director and representative for senior leadership of the PPRD programme. The fact that the team reflected gender balance signalled to partner countries that equal representation of women and men is normal and important in the planning of an exercise and when carrying out work in the DRM field.

A broad representation of stakeholders were included in the FSX, including national and international authorities and organisations, teams and modules, and civil society representatives (mainly the Red Cross). Among volunteers from the Georgian Red Cross, who were trained in the Early Warning Early Action phase in the local areas and participated in the field exercise, gender balance was achieved. Injects also included communication and cooperation with local citizens. The integration of the Red Cross from Georgia, Italy and Ukraine brought valuable international non-governmental participation to the exercise. In future exercises, a broader presentation of civil society organisations should be considered, including actors specialised in gender, human rights, and civil society organisations representing women, girls, boys and men, youth, elderly, people with disabilities and other minority groups.

The inclusion of an environmental expert from the UN strengthened the representation of environmental perspectives in the FSX. A similar role/expert from the UN/EU within gender and human rights should be included in future exercises.

### Conclusion and recommendations

- The inclusion of the Red Cross and an environmental expert in the FSX was an important success and step forward. To improve in future exercises, invitation and dialogue should also include actors with gender and human rights expertise and a broad representation of civil society organisations.

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<sup>3</sup> View Annex 2: Indicators to measure the integration of CCI in the exercise.

- Gender balance in the exercise planning team was a success and important signal to partners that both women and men belong in an exercise environment, hence supporting the programme aim to strengthen the participation of women in the DRM system. In future exercises, gender balance and diversity should always be a core aims when putting together the exercise planning team.
- A clear strategy and actions to promote women to participate in exercises should be formulated in the very beginning of the planning. Close dialogue, capacity building and follow up with the host/partner organisation on these topics is needed to succeed better results on these indicators.

## 2. Measure and minimise the environmental footprint of the exercise

Several actions were taken during the planning of the exercise to minimize the environmental footprint from the TbiEx2023, a few examples;

- **An environmental advisor supported the exercise planning team** and this topic was on the agenda during the different planning conferences.
- **Bilateral working meetings was held with key experts** in the exercise planning team to ensure the mainstreaming of environmental issues in the exercise.
- To support the planning of logistics and the Base of Operation (BoO) to take environmental aspects into consideration, a ***Checklist for CCIs in logistics in exercises<sup>4</sup>*** was developed. Responsible staff in the exercise planning team reported that they used the checklist and raised the issues in dialogue with the host organisation.
- **24/7 Camp Rules to limit the environmental footprint and contribute to positive environmental impact** were developed for the exercise and translated into the languages of the participating countries. The rules were included in the Exercise Handbook and presented at the final conference. All members of the exercise planning team were briefed of the rules and posters were put up in the BoO.

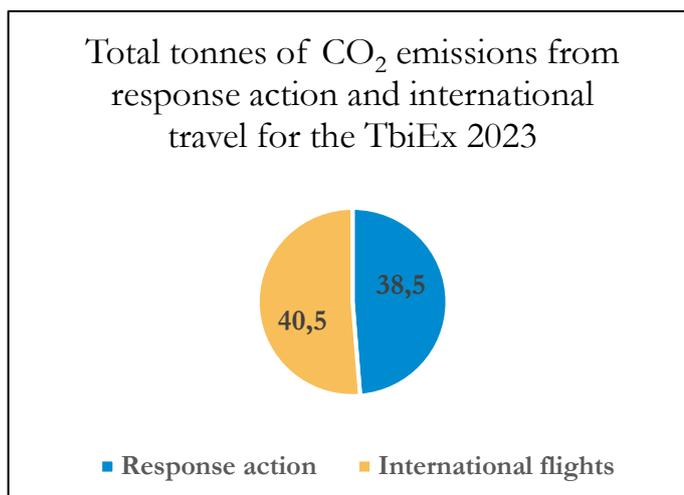
In Annex 5 Environmental footprint TbiEx2023, a more in depth report on the **environmental footprint from the exercise** can be found. The report focuses on the environmental impact from the exercise, with special attention to the carbon footprint. The carbon footprint is interesting to know more about, not least because of the relation between greenhouse gas emissions and wildfires, which also was the main scenario for the exercise.

Delimitations for the carbon footprint measurement was response action, international travels and the wildfire in itself. The focus for analysing the carbon footprint from the exercise lies on the response action and international travel, but the wildfire event in itself is also interesting to understand for reasons described in the report.

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<sup>4</sup> View Annex 3: Checklist for integrating CCIs in logistics for exercises

**The total Carbon dioxide (CO<sub>2</sub>) footprint from response action and travels for the TbiEx2023 was 79 tonnes of CO<sub>2</sub>.** The wildfire events compiled to a total carbon dioxide emission of 1460 tonnes CO<sub>2</sub>. Hence, the carbon emissions from wildfires is extensive and far larger than response action in this exercise. This implies that suitable prevention and preparedness actions could play a very important role in minimizing greenhouse gas emissions from wildfires.



Besides the carbon footprint measurement, **other environmental aspects were considered** in the planning of the exercise. One example is the hand out of a reusable bottle to all participants. The idea of this was to minimize the use of single use items, such as plastic bottles. At the same time, this can be a visual way of showcasing the focus on environmental issues in the programme and for the TbiEx2023. In the independent FSX evaluation report, it is written;

*“...however, the practice did not take place extensively (the reusable bottles were not available to everyone and the idea behind the bottles was not clear to all). There was no access to filling the bottles widely available. Plastic water bottles were distributed to the participants through the exercise.”*

Since the reusable bottles were not used accordingly to its purpose, there is a potential risk that this have led to an even higher environmental footprint, both from producing the reusable bottle and in addition the single use bottles.

Overall, the evaluation report states that several of the environmental aspects were not fully considered during the implementation of the exercise. More work remains to implement exercises with as low environmental impact as possible, considering areas like material usage, transports and chemical use.



*A reusable bottle of metal was handed out to participant during the exercise. The idea behind this was to avoid single use water bottles.*

### Conclusion and recommendations

- The environmental footprint calculated in the TbiEx2023 is not complete, nor fully correct. Yet, it stands as a pioneer example for future exercises. Measuring and minimizing the environmental footprint from exercises is recommended to be a natural part of the planning, implementation and evaluation of future EU (and other) exercises.
- Exercises provides a great opportunity for building capacities for green response action but also to learn more about environmental consequences from disaster events and how climate change impact on disaster risk.
- The carbon emissions from wildfires are extensive and in this exercise, far larger than response actions. This implies that suitable prevention and preparedness actions could play an important role in minimizing greenhouse gas emissions from wildfires. This in combination with more effective response action, that is not fossil driven, would elevate disaster risk management efforts to become more environmentally sustainable.

### 3. Promote that all participants are safe and can make use of the training opportunity on equal terms

To support the planning of logistics and the Base of Operation (BoO) to take gender and human rights aspects into consideration, a *Checklist for CCIs in logistics in exercises*<sup>5</sup> was developed. Responsible staff in the exercise planning team reported that they used the checklist and raised the issues in dialogue with the host organisation. Yet, in the beginning of the exercise, the toilets and showers were not segregated by sex, as recommended. Some participants reported that they did not want to use the showers. Another issue was that the food served in the BoO did not consider different dietary needs/preferences e.g. due to health or religious reasons.

*24/7 Camp Rules to ensure a safe, respectful and inclusive environment for all participants*<sup>6</sup> were developed for the exercise and translated into the languages of the participating countries. The rules were included in the Exercise Handbook and presented at the final conference. All members of the exercise planning team were briefed of the rules and posters put up in the BoO. The individual responsibility to contribute to this environment was stressed. In addition, all PPRD contracted staff were bound by the PPRD Code of Conduct during the exercise.

**A Feedback and complaints mechanism (FCM)** was established for the exercise, including multiple channels (phone, email, anonymous online form<sup>7</sup>, physical suggestion box) to share feedback and complaints with the programme management. An SOP to handle reports, including sensitive and serious cases such as sexual exploitation and abuse, was established<sup>8</sup>. All members of the exercise planning team were briefed on how to use the FCM and act if a participant would disclose an incident to them. Staff with a role to respond to and refer reports for further investigation received a special briefing. Posters with information on how to access the FCM, including a QR code to the online form, were posted in the BoO<sup>9</sup>. During the exercise period, no reports came in. While this could be interpreted as there was nothing to report, it is more likely that information about the FCM did not reach the participants. It could also be that participants did not feel confident to report or they shared their feedback or complaints through other channels e.g. directly to their team leader or in the post exercise survey.

**In the post exercise survey**, a question measured how well the respondent thought the exercise reached the objective: “Ensuring all participants are safe and can make use of the training opportunity on equal terms (e.g. facilities, transportation), despite their age, gender, religion etc. In total, 81% of all responders agreed (very well or fairly well) to the statement. However, less women (65%) than men (84%) agreed. This indicates that male participants were more happy with the training arrangements, compared to female participants. Clearly, the target that 100% of participants agree that all participants were safe and could make use of the training opportunity on equal terms was not reached. Instead, the fact that 25% of women answered “poorly” signals that improvements are needed in this regard.

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<sup>5</sup> View Annex 3: Checklist for integrating CCIs in logistics for exercises

<sup>6</sup> View Annex 4: 24/7 Camp Rules

<sup>7</sup> PPRD East 3 Feedback and Complaints form <https://ee.humanitarianresponse.info/x/HT4ODUIb>

<sup>8</sup> Can be shared upon request

<sup>9</sup> View Annex 6: PPRD FCM information poster/flyer

Participant survey question 6	In your opinion, how well did we reach the following objectives set for the exercise:: Ensuring all participants are safe and can make use of the training opportunity on equal terms (e.g. facilities, transportation), despite their age, gender, religion etc.		
	Total (176)	Women (20) <sup>10</sup>	Men (155)
Very well	50,5 %	35 %	53%
Fairly well	31 %	30 %	31%
Poorly	6 %	25 %	3 %
Very poorly	0,5 %	0	1 %
No answer	12 %	1 %	12%

## Conclusion and recommendations

- While different communication materials were available and shared with participants on the 24/7 camp rules and how to report feedback and complaints, messages may not have been understood, resulting in less individual commitment. This may be due to cultural differences or language barriers. To ensure effective communication tools and channels, a closer dialogue with the partner countries and national actors in the development of communication material is highly recommended.
- Practical tools to support the planning of the BoO was developed and shared with the host organisation. However, recommendations did not translate into actions on the ground and it seems like not all messages were fully understood. To ensure CCIs will be more effectively considered, a closer dialogue, capacity building and follow up with the host/partner organisation is recommended in future exercises.
- The post exercise survey shows that less women (65%) than men (84%) agreed that the exercise reached the objective: “Ensuring all participants are safe and can make use of the training opportunity on equal terms. This sends a clear signal to the exercise planning team that improvements are needed in this regard.

## 4. Include relevant gender, human rights and environmental aspects in the development of the scenario and events/injects.

**The Master Scenario and Events List (MSEL)** was prepared in consultation with the CCI advisors. The exercise planning team independently included CCI considerations in the first drafting of the list and the advisors supported to develop the scenario and injects further by adding additional considerations. In the final MSEL for the FSX, gender and human rights perspectives are included in six injects. For environment, seven injects were included in the final version. Clearly, for both CCIs, the targets of number of included CCI injects were reached. However, a number of CCI related injects that were suggested by the CCI advisors never reached the final version. For future exercises, it is recommended to include more (and more complex) injects with linkages to CCIs.

Based on available documentation from the FSX, it is not possible to assess **the extent to which teams actually reacted to information/considerations related to the CCIs** that were integrated into the scenario. To collect this data during an exercise, it would require team leaders/trainers/observers to look specifically at how CCIs aspects were applied in the participants’ response. To allow for this, the task should be part of their ToR and they would also need special training/briefing. This should be considered in future exercises.

<sup>10</sup> One respondent answered other/I prefer not to say on the question “what is your gender?”.

## Conclusion and recommendations

- The targets to include CCI in the scenario and injects in the TTX and FSX were reached. A close collaboration with the exercise planning team in the development process was a success factor. However, for future exercises, it is recommended to include more (and more complex) injects with linkages to CCIs.
- Based on available documentation from the FSX, it is difficult to assess in a structured way the extent to which teams actually reacted to information/considerations related to CCIs injects. Future exercises should plan for this and train trainers/observers to include this in their assessment of team performance.

## 5. Assessing relevant gender, human rights and environmental aspects in the evaluation of the exercise and communicating our results.

**The CCI advisors collaborated with the evaluation officer** to ensure CCIs were accounted for in the evaluation of the exercise. A specific objectives for CCIs was formulated for the exercise<sup>11</sup> and indicators to measure the effects were developed. A briefing was held with the evaluators of the exercise to introduce the CCI approach and their tasks to evaluate the integration of CCIs in the exercise. In the surveys for the participants of the exercise, CCI aspects were included and the independent FSX evaluation report had a section on CCIs. The integration of CCIs in the exercise was also discussed with the PPRD exercise planning team in the internal After Action Review.

**The lessons learned meeting** was planned with a clear aim to integrate CCIs. No specific workshop focused on unpacking the learning of applying a CCI approach to the exercise, but the plan was to mainstream the perspective into the other sessions where key topics were discussed e.g. HNS and Safety and security. To provide an overview of the result and learning from the CCI approach in the FSX, the CCI advisors presented their main findings to all participants in the meeting. To create more space for dialogue with the participants on the results, usefulness and how to develop the CCI approach further in future exercise, it is recommended that future lessons learned meetings adopt a mainstreaming approach to workshops, but also include a specific workshop on CCIs in the exercise.

Communication plays a very important role in sharing the learning from the exercise. **To communicate about the innovative CCI approach in the exercise** and the results, different methods and channels have been used. In the TbiEX2023 press release, which was published on [the pprdeast3 webpage in June 2023](#), there was a specific section describing the CCI approach in the exercise. In the TbiEX2023 briefing note, CCIs were included clearly already on the first page. The note was shared with participating countries, but also published on the [pprdeast3 webpage in April 2023](#).

**After the lessons learned meeting, it is recommended** to produce easily accessible communication material e.g. a summary as a one pager, video or poster to highlight the CCI work that was done in the exercise, the results and recommendations. Furthermore, the programme should search opportunities to share the learning of integrating CCIs in an exercise via strategic platforms within the EU, such as the Knowledge network and the Civil Protection Forum. A strategic aim for communication activities should also be to advocate for that the integration of CCIs will be systematically included in future EU exercises e.g. in calls for proposals.

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<sup>11</sup> View Annex 2: Indicators

## Conclusion and recommendations

- The formulation of a CCI objective and the development of specific indicators and targets were useful to specify what to focus on in the evaluation and how to measure the effects of the CCI work. These are recommended actions also for future exercises.
- The integration of CCIs in the evaluation report and participant survey is seen as a success and should be replicated in future exercises. However, adding more questions to gain a deeper understanding of certain CCI related topics, e.g. women and men's different experiences of the exercise and awareness of the FCM, should be considered.
- To ensure learning of the CCI approach in the exercise will be shared further, it is suggested that targeted communication activities will be implemented after the lessons learned meeting.
- A strategic aim for communication activities after the exercise should be to advocate for that the integration of CCIs will be systematically included in future EU exercises e.g. in calls for proposals.

# Main conclusions and recommendations

The approach to integrate gender, human rights, and environmental perspectives as CCIs into all phases and parts of the FSX was adopted from the start of the exercise planning process. This was a new approach and the exercise planning team was breaking new grounds. The aim was to contribute to strengthening DRM capacities in the partner countries in a way that enhances sustainability and the resilience of the society as a whole, leaving no one behind. It was also about ensuring “do no harm” in the exercise. All of this in line with global frameworks such as the Sendai Framework, Agenda 2030, Paris agreement on climate change and European Framework for DRR.

This report shows that the overall objective for CCIs in the exercise; *Gender, human rights and environmental issues were integrated in the planning, implementation and evaluation of the Full Scale Exercise*; was achieved. However, by assessing the indicator for CCIs<sup>12</sup>, more efforts and improvements are needed to achieve desired results and effect within all CCI focus areas<sup>13</sup>. First important steps have been taken to understand how to best integrate CCIs within an exercise and new methods and tools have been developed. Future exercises should build upon this work and developed the approach further. The following recommendations should be considered.

1. **To ensure CCIs are systematically integrated as a core part of an exercise**, it cannot be an optional or add-on task. CCIs must be part of the terms of reference for an exercise. The exercise leadership must create the right conditions for working with CCIs and follow up that actions are being taken. To contribute to a systematic integration of CCIs in future EU exercises, it is recommended that the integration of CCIs is included in the calls for proposal for exercises.
2. The CCI advisors had a strong position in the exercise planning team and provided remote support throughout the planning process. Most capacity building targeted members of the exercise planning team and no direct contact was made with the partner countries. To

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<sup>12</sup> View Annex 2.

<sup>13</sup> View Introduction.

strengthen the result and effects, it is highly recommended to strengthen the **dialogue with and target capacity-building activities to responsible actors/staff in the partner countries** - those making decisions on the ground. To allow for this, CCI advisor should be appointed and their physical presence should be prioritised in key events to plan, implement and evaluate an exercise.

3. The inclusion of the Red Cross and an environmental expert in the FSX scenario was a success and important step forward to strengthen the integration of civil society and a broad representation of actors in the DRM system. To improve further, **invitation and dialogue should also target actors with gender and human rights expertise and civil society organisations representing all groups of the society**, including women, girls, boys and men, youth, elderly, people with disabilities and other minority groups.
4. A clear strategy to **promote women to participate in an exercise** should be adopted in the planning process and close dialogue with partner organisations on the topic is key. Gender balance in the exercise planning team was important and signalled that both women and men belong in an exercise environment. In future exercises, gender balance and diversity should be the aim when putting together the exercise planning team. In addition, it is recommended to continue measuring the different experience of female and male participants in post activity surveys to be able to learn and improve the learning environment for all participants.
5. **The environmental footprint calculated in the TbiEx2023 stands as a pioneer example.** We can learn from the calculation that suitable preparation and prevention measures could be very effective to hinder extensive carbon dioxide emissions from wildfires. We can also learn that exercises provides a great opportunity for building capacities for green response action. Measuring and minimizing the environmental footprint from exercises is recommended to be a natural part of the planning, implementation and evaluation of future EU (and other) exercises.



**Include the integration of CCI** in the terms of reference for exercises.



**Capacity building** activities should target in-country recipients.



**Invitation and dialogue** should target a broad representation of actors.



Adopt targeted measures to **promote women's equal participation** in exercises.



Measure and minimize the **environmental footprint** from exercises.

# Annex 1: PPRD Checklist for integrating CCIs in training and exercises

The aim of this checklist is to support the integration of the cross-cutting issues (CCI) of gender, human rights, and environment in the planning, delivery and evaluation of training and exercise events. It was produced by the Environmental Advisor and Gender Advisor in the PPRD East 3 in collaboration with ESAF representatives.

## How to use the checklist

### Step 1. Decide your level of ambition

When planning an event, discuss in your planning team what resources and capabilities you have to include gender, human rights and environmental perspectives in the training or exercise event. The checklist consist of several aspects and all may not be applicable for all events. It may be relevant to focus only on a few, several or go for the whole list. Discuss and decide your level of ambition!

### Step 2. Using the lists in your planning

Go through the two checklists for environmental aspects and gender and human rights aspects.<sup>14</sup> Fill in *Yes*, if this is what you are planning to do, and *NA* (not applicable) if not relevant or possible for your event. You can write in the comment field what you aim to do to tick this box. Make it a routine for each training event to fill in these lists as part of your planning.

### Step 3. Follow up – how did it go?

After the training, go through the list again and reflect upon how well you followed the plan. Reflect in the comment field on what actually came out. For example, what worked well and what did you do that was successful? Did you face any challenges or had to change your plan? In the evaluation of training events, make sure to report if you used the checklist and what came out.



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<sup>14</sup> Further guidance and more tips can be found in section on training and exercises in the PPRD East 3 [Practical Guidelines for integrating gender, human rights and environmental issues in DRM.](#)

<b>Checklist - Environmental aspects</b>	<b>Yes</b>	<b>NA</b>	<b>Comment</b>
<p><b>Training facility</b></p> <ul style="list-style-type: none"> <li>We plan to optimize the energy consumption from the training event <i>Example: We have a routine for turning off electrical devices like AC, computers, lighting whenever not used</i></li> <li>We have taken actions to optimize transportations to/from and within an event <i>Example: Public transportations is used when applicable</i></li> </ul>	x		Included in 24/7 camp rules+ CCI in logistics
<p><b>Meals and drinks</b></p> <ul style="list-style-type: none"> <li>Meals and drinks that we serve at the training event is chosen with the environmental perspective in mind. <i>Example: Vegetarian food is the default choice and actions to minimize food waste is implemented</i></li> <li>We serve meals and drinks with the ambition to produce as little waste as possible <i>Example: No single use bottles is used</i></li> </ul>	x		Included in 24/7 camp rules+ CCI in logistics
<p><b>Online meetings</b></p> <ul style="list-style-type: none"> <li>During online meetings we plan regular breaks and encourage participants to shut off cameras when suitable (preferably during breaks) <i>Example: Every hour we have at least 10 minutes break when cameras should be shut off</i></li> </ul>		x	
<p><b>Setting the rules</b></p> <ul style="list-style-type: none"> <li>We emphasize participants/trainers/facilitators personal environmental responsibility and provide examples on how they could act accordingly <i>Example: Tips could be gather from this document, e.g. shutting down computers when not used or how to act in order to not produce unnecessary waste</i></li> </ul>	x		Included in 24/7 camp rules+ CCI in logistics
<p><b>Material usage</b></p> <ul style="list-style-type: none"> <li>We consider the environmental perspective when we produce or purchase training material. <i>Example: We favour online material before printed material. Colour free and double printed is the default choice</i></li> </ul>	x		At least one product (water bottle)
<p><b>Accommodation and longer distance travel</b> (MSB admin first hand responsibility, if expert book travel, consider this)</p> <ul style="list-style-type: none"> <li>Hotels and other accommodations that we use during training have an active environmental work <i>Example: When in contact with the hotel we ask how they work with environmental issues like saving water and energy efforts (note the procurement regulations!).</i></li> <li>We chose the most practical and safe option for travel, e.g. train, bus, airplane. If we travel by airplane we chose the best available trip e.g. direct flights <i>Example: For every flight we book we document the carbon footprint caused by the trip (is often shown when booking).</i></li> </ul>	x		Documented carbon dioxide footprint from flights
<p><b>Integration of environment in the content of the training</b></p> <ul style="list-style-type: none"> <li>We have integrated an environmental perspective in the design of the training event <i>Examples: If applicable, we have specific learning objectives regarding environmental perspective, e.g. on environmental drivers of disasters; We support trainers/ facilitators on how to apply an environmental perspective in their training event; We have included (local, regional or national) environmental stakeholders to the training event</i></li> </ul>	x		Scenario and injects
<p><b>Evaluation of the training</b></p> <ul style="list-style-type: none"> <li>We evaluate how environment was integrated in the training event <i>Example: Reviewing this check-list and reflecting upon successes and challenges related to each box. A summary of this could be added in the training report (same for gender).</i></li> </ul>	x		Evaluators, Survey, AAR and lessons learned

Checklist - Gender and human rights aspects	Yes	NA	Comment
<p><b>Training facility and accommodation</b></p> <ul style="list-style-type: none"> <li>Safety and accessibility for female and male participants, including people with disabilities, is considered.</li> </ul> <p>Examples: Toilets, changing rooms and sleeping facilities were segregated for women and men; Safe transportation was provided.</p> <ul style="list-style-type: none"> <li>The timing and place of the event is decided with consideration to that both female and male participants will be able to attend.</li> </ul> <p>Examples: Sessions were not planned outside of office hours to ensure staff with family responsibilities could join.</p>	x		Supporting tools developed: 24/7 camp rules, CCI in logistics. Though not from the very start of the exercise, WASH facilities were disaggregated by sex.
<p><b>Gender balance and diversity in the group</b></p> <ul style="list-style-type: none"> <li>Actions are taken to promote gender balance and diversity among participants in the training.</li> </ul> <p>Examples: Training invitations included a note that female participants were encouraged to apply and they were shared with actors and networks reaching female professionals with relevant backgrounds.</p> <ul style="list-style-type: none"> <li>Action are taken to promote gender balance and diversity among trainers and facilitators.</li> </ul> <p>Example: Invitations were shared with actors and networks reaching female professionals with relevant backgrounds.</p>	x		Actions were taken (dialogue with partners) to promote gender balance among participants, within teams were possible. Among the fire fighters, this was simply was not possible
<p><b>Integration of gender and human rights in the content of the training</b></p> <ul style="list-style-type: none"> <li>We integrate a gender and human rights perspective in the design of the training event</li> </ul> <p>Examples: Training needs related to the participants' knowledge about gender and human rights aspects of the training topic were assessed and specific learning objectives targeting these were identified; Gender, age and disability aspects were used in scenarios and exercises; A broad representation of actors were involved in the training event, including civil society organisations representing women, girls, people with disabilities and other minority groups.</p>	x		Through injects and events.
<p><b>Delivery of sessions</b></p> <ul style="list-style-type: none"> <li>Gender-aware and inclusive pedagogy and facilitation techniques is used</li> </ul> <p>Examples: Training methods were varied to meet diverse learning techniques; Gender balance was organised in group discussions; Used case studies, images, and videos represented a diversity of people; Gender-sensitive language was used; More space was given to female participants (if speaking less); Ground rules were established emphasising mutual respect and awareness of diversity within the group.</p>		x	Was not be prioritised due to time constraints.
<p><b>Feedback and complaints</b></p> <ul style="list-style-type: none"> <li>A 24/7 channel for providing feedback and reporting misconducts is available, e.g. a helpline or email address.</li> <li>Participants are informed about how to provide feedback/file a report.</li> <li>Routines for handling cases of misconduct exist.</li> <li>All training staff and trainers/facilitators are instructed how to act if a case of misconduct is disclosed.</li> </ul>	x		Feedback and complaints channels established. Communication material developed and shared. SOP to handle cases developed. Capacity strengthening activities targeting key staff.
<p><b>Evaluation of participant's experiences</b></p> <ul style="list-style-type: none"> <li>Evaluation methods that guaranteed anonymity are used. Disaggregation of replies by sex was enabled (not recommended if jeopardising the anonymity of respondents).</li> <li>Questions assess participants' feelings of safety, respect, and equal participation.</li> </ul>	x		Inclusion of questions in survey (data disaggregated by sex).
<p><b>Evaluation of the training</b></p> <ul style="list-style-type: none"> <li>Evaluation includes how gender and human rights aspects were integrated in the training event,</li> </ul> <p>Examples: We have reviewed this checklist and reflected upon successes and challenges related to each box.</p>	x		Briefing of evaluators, development of indicators to measure result, inclusion of topic in independent evaluation report, AAR and lessons learned.

# Annex 2: Indicators to measure the integration of CCI in the FSX

**Overall objective for the exercise:** *“Gender, Human rights and Environmental issues was integrated in the planning, implementation and evaluation of the Full Scale Exercise”*

## Environmental indicators

Indicator	Target/what would success look like?	Outcome	Fully complete
			Partly
			Not at all
			Not possible to measure
Camp rules to limit the environmental footprint and contribute to positive environmental impact produced, translated into all local languages and communicated to all participants.	100% of participants received and understood the 24/7 Camp rules for the exercise.	24/7 Camp rules were described in session to participants and posted in BoO. About 48 % answered “very well or Fairly well” in the feedback survey on <i>Limiting the negative environmental impact of the FSX</i>	
The carbon intensity from the FSX is examined	Carbon footprint from FSX is calculated	The Carbon footprint from the FSX was measured (read more in separate report found as annex).	
Measures to minimizing the environmental footprint from the FSE was implemented 1. Waste 2. Transportation 3. Energy 4. Material usage	A. At least 2 waste fractions was available  B. Waste inspection at work site carried out  C. At least one fossil free transportation was use  D. All participants instructed to act energy efficient  E. At least 1 product was purchased with the environmental perspective in mind	A. From the evaluation report: <i>There was no system for sorting of waste in the BoO.</i>  B. At least one inspection was done after the exercise.  C. This was promoted but no evidence found that any fossil free transport was used  D.. Yes, 24/7 camp rules  E. Yes, a reusable bottle. The outcome of the use was on the other hand not as expected (read more in environmental footprint report).	
Extent on how stakeholders representing environmental perspectives was included in FSX	1 local, national or regional stakeholder included in response or recovery interventions in the FSX	Environmental expert from the UN	
Extent to which an environmental perspective is included in exercise scenarios and events/injects	4 environmental injects	This target was fulfilled and at least 17 injects had a direct or indirect linkage to the environmental perspective	

Extent to which teams react to information/considerations related to environment in the scenario	2 injects	No documentation accessible for this.
Extent in which environment is included in lessons learned activities	A. Questions related to CCIs included in AAR	A. No specific question but CCIs were discussed as a cross-cutting theme.
	B. 1 lessons learned workshop with the focus on CCIs	B. Part of other workshops
	C. CCI included in FSX/lessons learned report	C. Yes, this report.
The integration of environment in the FSX was communicated externally	One article was produced and published.	Included in press release of TbiEx2023

## Gender and human rights indicators

Focus area	Indicator	Target/what would success look like?	Outcome	Fully complete
				Partly
				Not at all
				Not possible to measure
1.	Women and men attending the exercise (divided rescue service workers/operational staff and "admin staff")	40/60	7,5 % women, 92,5 % men. Expected as very few women are working in the rescue service sector. The share of women were higher among the other participant groups, e.g. admin staff and medical staff. Gender balance was reached among participating volunteers and in the exercise planning team.	
1.	Stakeholders representing gender and/or HR perspectives included in FSX	1 local, national and/or regional stakeholder included in response or recovery interventions in the FSX	No stakeholder specialised in gender/HR, but the presence of the Red Cross representing civil society/grass root perspectives that brought important perspectives to the exercise.	
3.	Camp rules promoting a safe, respectful and inclusive environment produced, translated into all local languages and communicated to all participants.	100% of participants received and understood the 24/7 Camp rules for the exercise.	24/7 camp rules established and promoted in different channels. Question related to the rules was not included in the survey. Hence, it is not possible to measure how the messages came across.	
3.	Participants felt safe during the exercise, disaggregated by women/men.	100% agree that the exercise reached the objective: "Ensuring all participants are safe and can make use of the training opportunity on equal terms (e.g. facilities, transportation), despite their age, gender, religion etc.	In the post exercise survey, 81% of all responders agreed (very well or fairly well) to the statement. However, less women (65%) than men (84%) agreed. The target was not reached and the fact that 25% of female participants answered poorly signals that	

			improvements are needed in this regard.
3.	Female/male participants felt that they could make use of the training opportunity on equal terms	Same as above.	Same as above.
3.	A feedback and complaints mechanism established and communicated	A. Contact persons identified (male and female) and a process to refer reports to the involved organisation's own process established, feedback and complaints box available and monitored	A. Feedback and complaints mechanism (FCM) established with multiple channels, reporting focal points identified. SOP and communication materials developed. Briefings held with the exercise planning team and special briefing with reporting focal points.
		B. 100% of participants were aware of how to report feedback and complaints	B. A question if participants were aware of how to report feedback and complaints was not included in the survey. Hence, it is not possible to measure if participants were aware of the FCM.
4.	Extent to which a gender and human rights perspective was included in the exercise scenario and events/injects	4 gender and human rights injects	Reached.
4.	Extent to which teams reacted to information/considerations related to gender and human rights in the scenario	2 inject	No documentation accessible for this.
5.	Extent to which the integration of gender and HR in the FSX is included in lessons learned activities	A. Questions related to CCIs included in AAR	A. No specific question but CCIs were discussed as a cross-cutting theme.
		B. 1 lessons learned workshop with the focus on CCIs	B. Part of other workshops.
		C. CCI included in FSX/lessons learned report	C. Yes, this report.
5.	The integration of gender and HR in the FSX was communicated externally	One article produced and published	Several articles under production as of end of Sep 2023 when this report is published.

# Annex 3: Checklist for integrating CCIs in logistics for exercises

The aim of this checklist is to provide concrete practical guidance on how to consider the cross cutting issues (CCIs) of gender, human rights and environment in the planning of logistic arrangements for exercises. Further support to integrate CCIs in DRM activities can be found in [The practical guidelines for integrating gender, human rights and environmental issues in DRM](#), (available in English and Russian).

## Gender and human rights considerations

The main objective is to make sure that all participants<sup>15</sup> will feel safe and that their diverse needs will be accommodated for during the exercise. This to ensure everyone attending can make use of the training opportunity on equal terms.

What?	Check/ comment
<p><b>Safe transportation</b> Be mindful when booking transportation that women and men experience different security risks and may have certain requirements in order to feel safe. E.g. women are more at risk for sexual harassment and violence. In general, avoid female participants to travel alone.</p>	
<p><b>WASH</b> Arrange for separate toilets and shower facilities for women and men. Allow for privacy and be mindful of women’s sanitary needs e.g. by providing garbage cans in every toilet.</p>	
<p><b>Sleeping arrangements</b> Keep in mind that security risks may differ between female and male participants e.g., female staff are more at risk for sexual harassment and violence. As a general rule, arrange for separate toilets and shower facilities for women and men and make sure lightning is adequate in and around the facilities.</p>	
<p><b>Training facilities</b> Consider if the training facility/ies need to be made accessible to people with disabilities, including for people with physical, hearing and visual impairments. Is there a need for a space for religious practices, such as prayer room/s? Make sure lightning is adequate in and around the facilities if activities will be undertaken during evenings/nights.</p>	
<p><b>Security point of contact:</b> Make sure there is a 24/7 point of contact to whom participants can alert of any security related matters.</p>	

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<sup>15</sup> Regardless of sex, age, (dis)ability, religion, ethnicity, language or other background.

## Environmental considerations

The main objective is to make sure that we establish systems and routines to handle environmental issues before and during the exercise. This to ensure we fulfil our ambition of making **more good than harm** regarding both health security and environmental systems.

What?	Check/ comment
<p><b>Transportation</b></p> <ul style="list-style-type: none"> <li>We have taken actions to optimize transportations to/from and within an event <i>Example: Public transportations is used when applicable. Vehicles driven by electricity, biofuels or hybrids is preferable.</i></li> <li>We chose the most practical and safe option for travel, e.g. train, bus, airplane. If we travel by airplane we chose the best available trip e.g. direct flights <i>Note: For every flight we book we document the carbon footprint caused by the trip (is often shown when booking).</i></li> </ul>	
<p><b>Training facilities and accommodations</b></p> <ul style="list-style-type: none"> <li>We plan and take actions to optimize the energy consumption during the training event <i>Example: We have a routine for turning off electrical devices like AC, computers, lightning whenever not used</i></li> <li>Hotels and other accommodations that we use during training have an active environmental work and strive to minimize the environmental footprint and energy usage <i>Example: When in contact with the hotel we ask how they work with environmental issues like saving water and energy efforts (note the procurement regulations!).</i></li> </ul>	
<p><b>Meals and drinks</b></p> <ul style="list-style-type: none"> <li>Meals and drinks that we serve at the training event is chosen with the environmental perspective in mind. <i>Example: Vegetarian food is the default choice and actions to minimize food waste is implemented</i></li> <li>We serve meals and drinks with the ambition to produce as little waste as possible <i>Example: No single use bottles is used</i></li> </ul>	
<p><b>Material usage and waste management</b></p> <ul style="list-style-type: none"> <li>We consider the environmental perspective when we produce or purchase training material. <i>Example: We chose <b>paper</b> ahead of plastics and <b>reusable</b> options ahead of single use items.</i></li> <li>We make sure we have established routines for waste management during the exercise <i>Example: We clearly mark sites where waste could be thrown and separate at least two fractions, e.g. plastic and residual waste</i></li> </ul>	

# Annex 4: 24/7 Camp Rules

## 24/7 CAMP RULES

### to promote a safe, respectful and inclusive environment for all participants

PPRD East 3 shall be a programme free from discrimination and harassment. Everyone involved in the PPRD programme shall meet a safe, respectful and inclusive learning environment. To create such an environment, we all have a role to play and it includes taking responsibility for one's own behaviour.



### This is what you do

- **I treat people that I meet with respect**, regardless of their role/function or sex, age, disability, nationality, religion or ethnicity or any other characteristic.
- **I am attentive to people around me** and seek to make everyone feel welcome, included and safe.
- **I do not use offensive language** about anyone or any group of people. I refrain from jokes and jargon with sexual references or that target certain colleagues/groups.
- **I do not make unwelcome verbal or physical contact** with people that I meet during the exercise.
- **I do not begin a relationship or have sexual relations** with any other person when there is a power imbalance in the relationship.
- **I do not buy or convey any sexual services.** I do not visit pornography-, striptease-, or similar clubs since this can entail support to criminal activities, such as sex trade.
- **I respect the rules of sex-segregated facilities.**
- **Give my colleague a high five** when acting according to the 24/7 camp rules!



# 24/7 CAMP RULES

## to limit the environmental footprint and contribute to positive environmental impact

PPRD East 3 strives to limit the environmental footprint and contribute to positive environmental impact. To do so, we all have a role to play and it includes taking responsibility for one's own behaviour

### This is what you do

- **I seek to minimise the creation of waste** e.g. by using my reusable water bottle and return empty water bottles to get new ones.
- **I take care of waste at the work site** and recycle my waste as instructed by the EMS.
- **I plan my transportation in a smart way** e.g. by travelling together with someone and if possible, drive with empty water tanks (firefighting trucks).
- **I use energy in an efficient way** by shutting down electrical equipment that is not used, like computers and air conditioners.
- **I avoid food waste.**
- **Give my colleague a high five** when acting according to the 24/7 camp rules!



# Annex 5 Environmental footprint

## TbiEx2023 report

### Summary

During the field exercise TbiEx2023 there was a specific focus on integrating environmental issues in the planning, implementation and evaluation. This report focuses on the environmental impact from the exercise with special attention to the carbon footprint. The carbon footprint is interesting to know more about, not at least because of the relation between greenhouse gas emissions and wildfires which also was the main scenario for the exercise.

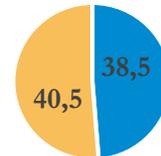
Delimitations for the carbon footprint measurement was response action, international travels and the wildfire in itself. The main focus for analysing the carbon footprint from the exercise lies on the response action and international travel, but the wildfire event in itself is also interesting to understand for reasons described in the report.

The total Carbon dioxide (CO<sub>2</sub>) footprint from response action and travels for the TbiEx2023 was **79 tonnes of CO<sub>2</sub>**.

The wildfire events compiled to a total carbon dioxide emission of 1460 tonnes CO<sub>2</sub>.

The carbon emissions from wildfires is extensive and far larger than response action in this exercise. This implies that suitable prevention and preparedness actions could play a very important role in minimizing greenhouse gas emissions from wildfires.

Total tonnes of CO<sub>2</sub> emissions from response action and international travel for the TbiEx 2023



■ Response action ■ International travel

We can learn that exercises provides a great opportunity for building capacities for green and effective response action but also to learn more about environmental consequences from disaster events.

Other environmental aspects, besides the carbon footprint were also considered in the TbiEx2023, but we can read in the evaluation report that several of these weren't fully considered and there is still work to be done to implement exercises to avoid negative environmental impact from e.g. material usage, transports and chemical use.

The environmental footprint calculated in the TbiEx2023 is not complete nor totally correct, yet it stands as a pioneer example for future exercises. Measuring and minimizing the environmental footprint from exercises is therefore recommended to be a natural part of the planning, implementation and evaluation of EU (and other) exercises onwards.

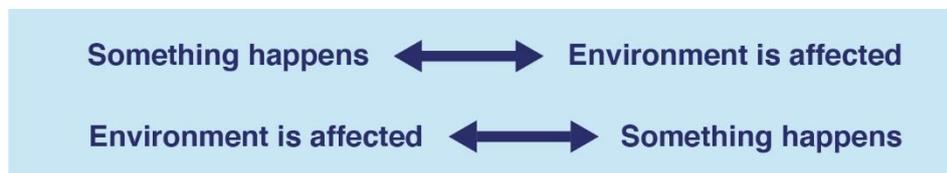
## Background

During June 2023 the field exercise TbiEx2023 was held in Tbilisi, Georgia. The exercise is part of the regional program PPRD East 3<sup>16</sup>. During the planning and implementation of the exercise there has been a specific focus on Cross cutting issues, namely gender, human rights and environmental issues. This report focuses on the environmental impact from the exercise with special attention to the carbon footprint. Besides this document there is a specific report on the cross cutting issue integration in the exercise along with recommendations<sup>17</sup>.

The environmental footprint from the exercise is interesting to examine, not at least because of the PPRD East 3 ambition to fulfil the “Do no harm” principle. In addition it’s interesting because of the relation between greenhouse gas emissions and wildfires which also was the main scenario for the exercise. In 2023 the Copernicus Climate Change Service released a report; “European state of the planet 2022<sup>18</sup>”, the report clearly showed the connection between wildfires and release of greenhouse gas emissions. At the same time global warming is changing the climate to be warmer and dryer in certain locations, with a higher potential of wildfires.

With that in mind , more knowledge about wildfire emissions and emissions from response action is needed so that we better can prepare and prevent those events from happening, but also responding to the events with as low environmental impact as possible.

This way of thinking applies to the conceptual framework for environment in PPRD East 3, both that environmental systems can be drivers and subjects of disasters (fig. 1). Read more about this in the Practical guidelines for integrating gender, human rights and environmental issues in Disaster risk management<sup>19</sup> (mainly pages 13. f.f.).



*Figure 1. The conceptual framework for environment in the PPRD East 3 describes a dual mind set where environmental systems both act as drivers and subjects of disasters. Shortly it’s described as: “something happens, thus the environment is affected,” and, vice versa, “the environment is affected, thus something happens”.*

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<sup>16</sup> Read more at: <https://www.pprdeast3.eu/>

<sup>17</sup> Read more at: <https://www.pprdeast3.eu/>

<sup>18</sup> Copernicus Climate Change Service (C3S), 2023: European State of the Climate 2022, Full report: [climate.copernicus.eu/ESOTC/2022](https://climate.copernicus.eu/ESOTC/2022). Summary: <https://doi.org/10.24381/gvaf-h066>

<sup>19</sup> Found here: <https://www.pprdeast3.eu/siteassets/practical-guidelines-for-integrating-gender-human-rights-and-environmental-issues-in-disaster-risk-management.pdf>

## Method

The idea for measuring the carbon footprint came up very early in the planning of the exercise and as the process developed, several adjustments have to be done to get an understandable result. The delimitations for the measurement was incoming teams, ground wildfire fighting and the wildfire in itself (fig. 2). The main focus for analysing the footprint of the exercise lies on the response action and the international travels, but the wildfire event in itself is also interesting to understand for reasons explained earlier.

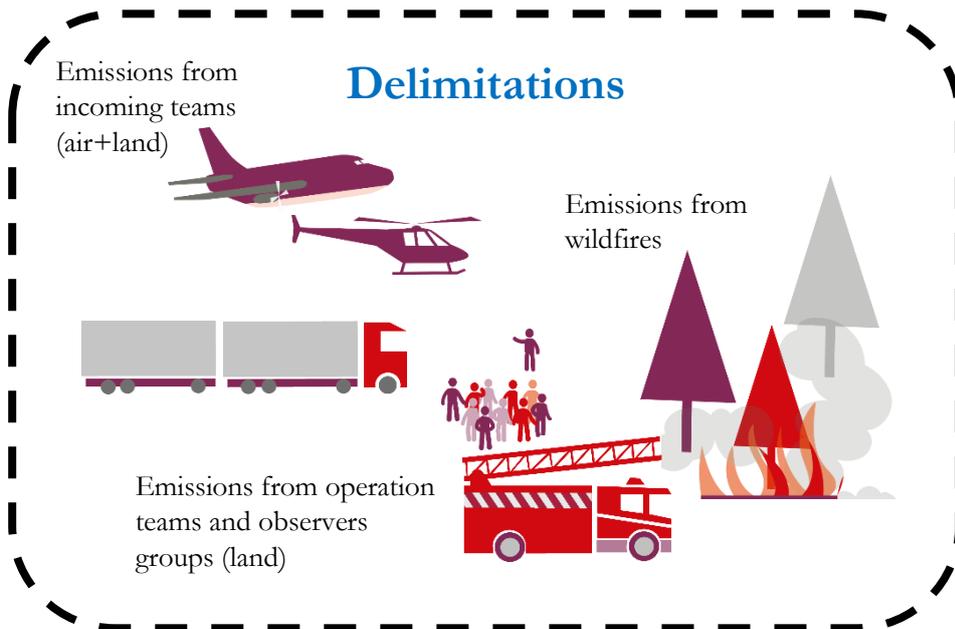


Figure 2. Delimitation for the carbon footprint

The different stages of the exercise were included in the measurement with the main focus on the live event where incoming teams from neighbourhood countries and other EU resources supported the response action. To put a simple formula on the calculation we calculate and add CO<sub>2</sub> emissions from the (fictive) wildfires, fuel consumption from the response action and international travels;

$$\sum CO_2 \text{ emission} = CO_2 \text{ emission}_{wildfires} + CO_2 \text{ emission}_{fuel \text{ cons.}} + CO_2 \text{ emission}_{international \text{ travel.}}$$

The data from the wildfires was gathered from the exercise master event list, the volume of gasoline and diesel was collected through a template that each operating team filled in and CO<sub>2</sub> emissions from international travel was found in the travel agency reporting system.

To be able to calculate the carbon dioxide emissions, different factors have to be used. The most complex factor is the one for calculating the emissions from the wildfire event. Actual calculations of such emissions require a lot of satellite data but for the sake of this exercise the factor used was based on real calculations and observations from the Copernicus Climate Service and used as an example just to calculate a result. Carbon dioxide factors for gasoline and diesel was gathered from the Greenhouse gas protocol (2018 version) calculation tool.

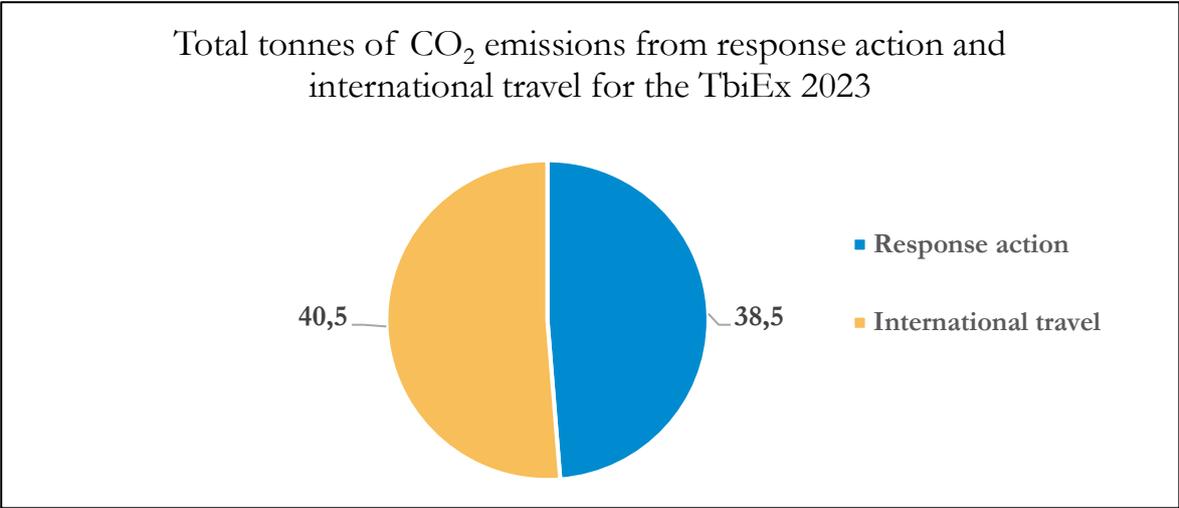
Data for benchmarking was gathered from an online dashboard linked to the exercise logistic function.

Besides the carbon footprint from the exercise, other environmental parameters were also examined. There was specific indicators for waste, energy and material consumption during the exercise and for these, a qualitatively evaluation was done after the exercise.

**Results**

**Carbon footprint**

The total Carbon dioxide footprint from response action (meaning fuel consumption from incoming and national teams) and travels for the TbiEx2023 was **79 tonnes of CO<sub>2</sub>**, where each parameter accounted for about half of the total emissions (fig. 3).



*Figure 3. Shows the total amount of Carbon dioxide emissions in tonnes from response action and international travels for the TbiEx2023*

Looking at the wildfire event there was mainly seven different fires with a total area of 73 ha that required response from fire fighters. These fires compiled to a total carbon dioxide emission of **1460 tonnes CO<sub>2</sub>** (fig. 4).

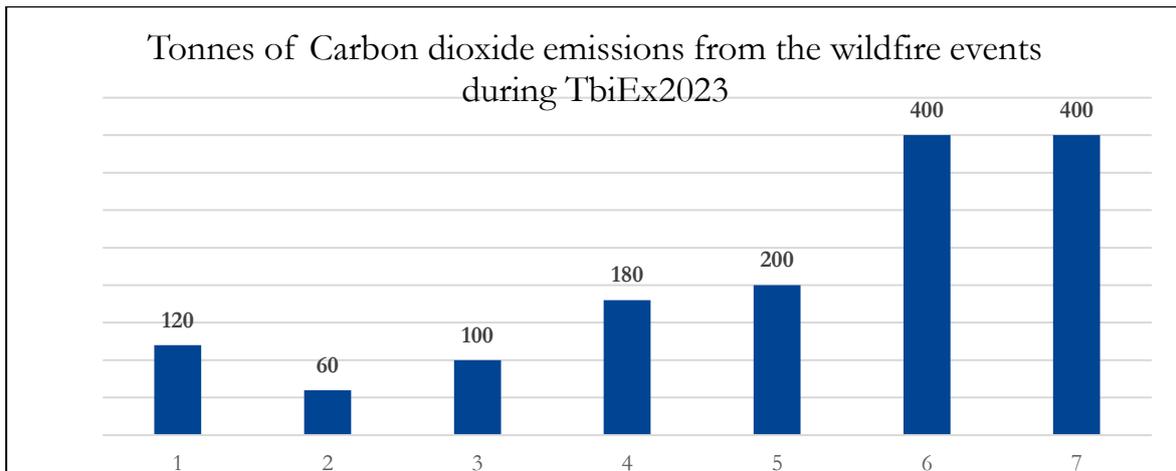


Figure 4. The numbers in the figure indicates the different stages/sequences of the exercise. The total amount of Carbon dioxide from the wildfire events in the TbiEx2023 was 1460 tonnes of CO<sub>2</sub>

In order to compare the TbiEx2023 with other exercises, three different numbers for benchmarking was calculated. These show that each person involved during the exercise is allocated to about 0,3 tonnes of carbon dioxide emissions, each responding team 6,6 tonnes and each day of response action 26 tonnes of CO<sub>2</sub> (tab. 1).

Table 1. Data that could be used to compare the CO<sub>2</sub> emission from the TbiEx2023 with other similar exercises.

<b>Data for carbon dioxide emission benchmarking</b>	
Tonnes CO <sub>2</sub> per person	<b>0,3</b>
Tonnes CO <sub>2</sub> per responding team	<b>6,6</b>
Tonnes CO <sub>2</sub> per days of response action	<b>26</b>

### Other environmental parameters

From the evaluation report we can read that;

*“While, in principle, the exercise attempted by design to limit its environmental impact, this was not entirely evident in its implementation.”*

A reusable bottle (fig. 5) was handed out to all participants during the exercise. This is a way of minimizing the use of single time items such as plastic bottles. At the same time it can be a very visual way of showcasing our focus on environmental issues in the programme and for the TbiEx2023. Still we can read in the evaluation report that,

*“...however, the practice did not take place extensively (the reusable bottles were not available to everyone and the idea behind the bottles was not clear to all). There was no access to filling the bottles widely available. Plastic water bottles were distributed to the participants through the exercise.”*

There is a potential risk that this have led to an even higher environmental footprint, both from producing the reusable bottle as well as the single time use bottles, since the bottles weren't used accordingly to its purpose

Further we can read in the evaluation report that;

*“There was no system for sorting of waste in the BoO. , There was no (obvious) unused food collection system for recycling., There was no (obvious) existence of solar panels for use of renewable energy, Vegetarian lunch options were not available at the BoO.”*

During the exercise we also saw physical impact to the training site and a potential spreading of chemicals to soil and water recipients from extinguishing water and foam (fig. 6).



*Figure 5. A reusable bottle of metal was handed out to participant during the exercise. The idea behind this was to avoid single time use water bottles.*



*Figure 6. Image from the TbiEx2023. Intensive work with extinguishing a fire in a car, what measures could we take to avoid secondary impacts to soil, water and ecosystems?*

## Discussion

The ambition of mainstreaming environment and measure a carbon footprint from the TbiEx2023 is something that we haven't seen in so many examples before, not nationally nor internationally. The results from this exercise should therefore also be seen in the light of this rather new methodology. There are therefore also several lessons learned from working systematically with environmental issues in the planning, implementation and evaluation of the TbiEx2023. Many of these lessons learned can be applied in other contexts especially related to other exercises.

From the carbon dioxide calculations we can learn that the wildfire emissions is a lot higher than travels and response action. This was also the reason why the results in the end was presented separated, with the wildfire emissions as one part and the other parameters on the other.

One can argue that the wildfire emissions isn't fossil based and part of the natural carbon cycle but, the emissions from wildfires in EU was higher than in 20 years 2022 according to the Copernicus Climate Service, implying that several events we see today is exceptional and probably shouldn't have

happened without the increased greenhouse gas effect. The relation between heatwaves and climate change is reported a lot as a consequence of the warm summer in Europe 2023. In studies, provided by the World weather attribution<sup>20</sup>, we can as an examples read that the extreme heat during summer 2023 was made much more likely by climate change. In other words, climate change provides good circumstances for large and intense wildfires.

We can learn from the carbon footprint that effective preparation and prevention measures, such as early warning systems and early actions could be very motivated to hinder both the extensive wildfire emissions but also the emissions related to response action. If we also could develop the response action to be less fossil driven we can elevate the performance of disaster risk management efforts to be more environmental sustainable as well.

Nature based solutions could also play a very important role in adapting to a changing climate as well as being a part of the prevention phase of the disaster risk management cycle. When it comes to wildfire prevention, nature based solutions should be seen as a functional solution with the potential of bringing several other positive side effects to the table.

The factors for calculations of the CO<sub>2</sub> emissions should and could of course be discussed back and forth if they are relevant and accurate. As mention already in the method part the most complex (and perhaps controversial) factor is the wildfire emissions factor. In the planning of this calculation, several sources was examined whereas the one from the Copernicus Climate Service was the best in the end, knowing that this is an EU context. The factors for gasoline and diesel were gather from the Greenhouse gas protocol to align these type of calculations with some standard tool.

Data collection during the exercise could definitely be developed an improved. The result regarding the carbon footprint in this report is not complete but based on the available data that was able to obtain during the exercise. But even though the footprint isn't complete and more work has to be done to increase the quality of such measures the main point is that there is a result to present. This could help us understand more about what type of environmental impacts there are from exercises and response action. It also fills a purpose sending a clear signal to the disaster risk management sector that this is important to consider and could increase the awareness of environmental issues in relation to exercises and response efforts. In combination with increasing the quality and accuracy of these measures, it would also be interesting to extend the delimitations to include more aspects related to e.g. food, material & energy consumption and waste management in the carbon footprint but this requires more control over the implementation and administration of the exercise.

It's clear and obvious when reading the evaluation report that even though the programme had high ambitions when it came to the environmental footprint of the exercise and several actions were taken in the planning of the exercise, the actual implementation wasn't sufficient according to this ambition. More effort and work have to be done to realise all the guidelines, checklists and ambitions that come with working integrated with environmental issues in an exercise like this.

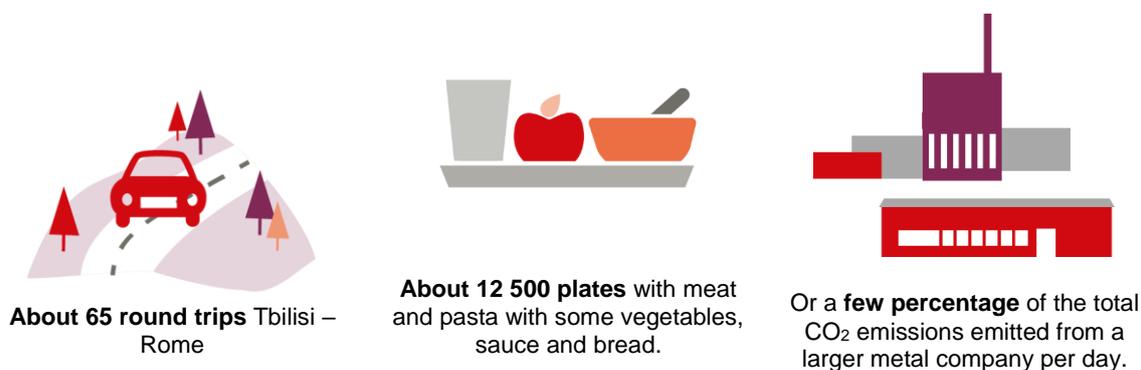
Looking at the benchmarking number per person we can see that each involved participant in the exercise was allocated to about 0,3 tonnes of CO<sub>2</sub> emissions. Looking at this number we should have in mind that a sustainable level for reaching the Paris agreement for climate change is often discussed to be around 1 tonne of CO<sub>2</sub> per person and year. This means that by just participating in this exercise a person only have 0,7 tonnes "left" during a year for travel, consumption and other carbon intensive activities.

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<sup>20</sup> <https://www.worldweatherattribution.org/>

If we compare the 79 tonnes of CO<sub>2</sub> generated from this exercise with a few other carbon dioxide intensive activities we can see that 79 tonnes of carbon dioxide is comparable with about 65 round trips by a gasoline car, Tbilisi-Rome. It can also represent 12 500 plates with meat and pasta or a few percentage of a larger metal company emissions per day (fig. 7).

**79 tonnes of carbon dioxide emissions is comparable with....**



*Figure 7. Comparison 79 tonnes of carbon dioxide emissions with some other carbon dioxide intensive areas. Calculations not exactly correct, but rather estimated based on factors and facts from open sources like Ecological footprint network, WWF food calculator, Google maps and Swedish Environmental Protection Agency.*

Many of the challenges related to the implementation could come from the different perspectives and roles different involved actors had in the exercise. The CCI advisors had a strong position in the exercise team and provided remote support throughout the planning process. Most capacity building efforts targeted members of the exercise team and no direct contact was made with the partner countries. To strengthen the result and effects of CCI advisors efforts, it is highly recommended to have a closer dialogue with and target capacity-building activities to responsible actors/staff in the partner countries and those making decisions on the ground. To allow for this, advisor’s physical presence should be prioritised in key events to plan, implement and evaluate an exercise.

**Conclusions**

The environmental footprint calculated in the TbiEx2023 is not complete nor totally correct, yet it stands as a pioneer example for future exercises. Measuring and minimizing the environmental footprint from exercises is therefore recommended to be a natural part of the planning, implementation and evaluation of EU (and other) exercises onwards.

Exercises provides a great opportunity for building capacities for green response action but also to learn more about environmental consequences from disaster events and how climate change impact on disaster risk and response efforts.

The carbon emissions from wildfires is extensive and far larger than response action in this exercise. This implies that suitable prevention and preparedness actions could play a very important role in minimizing greenhouse gas emissions from wildfires. This in combination with more effective response action that is not fossil driven would elevate disaster risk management efforts to be even more environmentally sustainable.

# Annex 6: PPRD FCM information poster/flyer

## PPRD East 3 Feedback and complaints mechanism

If you have any suggestions or concerns related to a PPRD East 3 programme activity, please report this through any of the reporting channels of the PPRD East 3 Feedback and complaints mechanism.

### How to report

You can report directly to the reporting focal points or via an anonymous online form and a Feedback and complaints box situated by the catering area. Note that if you want to receive a response, you need to provide your contact details in the online form or report directly to the reporting focal points. The complaint will then no longer be anonymous. In emergency situations, please contact local authorities.

We take complaints seriously and you should expect a response within 24 hours.

### What will happen to a report?

If further investigation is needed, referral to involved partner organisations may be needed. The wishes and concerns of the person who has reported and/or been affected will be at the centre of all actions. As few people as possible will be involved.

All forms of retaliation in relation to reporting is strictly forbidden and will be viewed as a serious offense.



### Reporting channels FSX



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**Feedback and complaints box**  
situated by the catering area.

**Anonymous online  
feedback and complaints form:**

