Strengthening field environmental management:

# Assessing the Green Field Tool roll-out in NPA



#### Report by:

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Contact: For CEOBS: Anna McKean anna@ceobs.org, for NPA: Bui Doan Bach buidoa445@npaid.org Frontpage photo: Deminers at work in Angola. The conditions are very challenging and progress is slow.

Credit: Sean Sutton/NPA

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The Conflict and Environment Observatory (CEOBS) is a UK charity that undertakes research and advocacy on the environmental dimensions of armed conflicts and military activities, and their derived humanitarian consequences. CEOBS' overarching aim is to ensure that the environmental consequences of armed conflicts and military activities are properly documented and addressed and that those affected are assisted. www.ceobs.org

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# **Contents**

Acronyms	4
Executive summary  Purpose of the report  Scope and methodology  Key findings from the implementation process Insights	<b>5</b> 5 6 6
GFT implementation case studies  Angola Bosnia and Herzegovina Cambodia Ukraine Vietnam Yemen Zimbabwe	7 8 10 12 14 16 18 20
Challenges and limitations  Knowledge, training and staff adaptation Technical barriers: infrastructure, internet connectivity, access in high-risk countries Cost and resource constraints Context-specific operational hurdles	22 22 23 23 23 23
Lessons learned Critical requirements for GFT implementation Operational considerations Outcomes in the studied countries	24 24 24 25
Conclusion and recommendations Strategic recommendations Next steps for improvement	<b>26</b> 26 27
Annex I: About the Green Field Tool	28
Annex II: GFT roll-out summary table	29

# Acronyms

CEOBS	Conflict and Environment Observatory				
СМАА	Cambodian Mine Action and Victim Assistance Authority				
CMAC	Cambodian Mine Action Centre				
EIMA WG	Environmental Issues and Mine Action Working Group				
EMA	Environmental Management Agency				
EMS	Environmental Management System				
EOD	Explosive Ordnance Disposal				
EORE	Explosive Ordnance Risk Education				
ERW	Explosive Remnants of War				
GFT	Green Field Tool				
GFT-OSA	Green Field Tool Open Source Application				
IMAS	International Mine Action Standards				
IMSMA	Information Management System for Mine Action				
MDD	Mine Detection Dogs				
MTT	Multitask Team				
NMAA	National Mine Action Authority				
NMAS	National Mine Action Standards				
NPA	Norwegian People's Aid				
NTS	Non-technical survey				
TN	Technical Note				
TS	Technical Survey				
SOP	Standard Operating Procedures				
WAM	Weapons and Ammunition Management				

# **Executive summary**

The Green Field Tool (GFT) was developed by Norwegian People's Aid (NPA) and the Conflict and Environment Observatory (CEOBS) in response to the increasingly important relationship between mine action and the triple planetary crises of climate change, pollution and biodiversity loss. It is well understood that mine action activities have the potential to adversely impact increasingly fragile environments and ecosystems, while the changing climate is making mine action contexts more unpredictable and dangerous. When planned and executed with due consideration to these issues, mine action has the potential to contribute to the mitigation of environmental degradation and climate change.

In recent years, the integration of climate and environmental considerations into mine action has been encouraged by the updated International Mine Action Standard (IMAS) 07.13, and its accompanying Technical Note (TN) 07.13/01; the incorporation of environmental considerations across the 2024 Siem Reap-Angkor Action Plan; donor requirements for environmental screening; and the release and roll-out of the Green Field Tool (GFT). The GFT is a practical toolkit to address environmental considerations in the field and develop broader environmental awareness among mine action staff. It can be implemented with just a basic level of environmental knowledge.

In 2025, the majority of NPA's mine action programmes began rolling out and implementing the GFT. By integrating environmental considerations into operational planning, these programmes are responding proactively to the triple planetary crises. The GFT has helped programmes to establish environmental profiles of their operational

areas and identify potential environmental risks and corresponding mitigation measures associated with mine clearance activities. While the tool provides a comprehensive list of mitigation and enhancement options to avoid, minimise, or address environmental impacts, it is not intended to be exhaustive. Users are encouraged to adapt and expand these measures to reflect local and regional environmental contexts, as well as differences in scale and activities they typically carry out. Integration of these considerations will lead to more sustainable mine action outcomes for communities in the longer term.

#### Purpose of the report

This report examines the integration of GFT across seven NPA programmes, sharing lessons learned and challenges for mine action operators and national mine action authorities considering its adoption. It outlines the scope of work, identifies potential challenges, and provides guidance to address them. It also provides an opportunity for NPA programmes to reflect on their progress so far, to identify further steps, as well as to refine the GFT and its accompanying GFT Open Source Application (GFT-OSA).

#### Scope and methodology

This study examines the lessons learned from implementing the GFT across seven NPA programmes over a six-month period showing the initial stages of roll-out (May to November 2025). The research reviewed GFT roll-out in Angola, Bosnia and Herzegovina, Cambodia, Ukraine, Vietnam, Yemen and Zimbabwe. Data was collected through literature reviews, a GFT survey feedback form to programmes, and from openended semi-structured interviews. Due to time

constraints, interviews were conducted only with GFT focal points and Environmental Officers, except NPA Yemen, where the Country Director was also interviewed.

#### Key findings from the implementation process

This report highlights NPA's implementation of the GFT in Southeast Asia, Europe, the Middle East and Africa, illustrating its broad relevance and usability across regions. The flexibility of the GFT is identified to be a key strength, and it has proved to be adaptable to diverse climate and environmental conditions.

#### Insights

- All seven NPA programmes are experiencing the effects of climate change and changing environmental conditions, leading to more standdown days due to extreme weather, and reporting impacts on the livelihoods of communities.
- The GFT should be used at the earliest stages of programme planning, alongside the collection of climate and environmental information, community engagement, and non-technical surveys (NTS). Early use enables the timely identification and implementation of mitigation or control measures and helps to manage climaterelated risks and reduce other potential environmental impacts associated with mine action activities.
- The GFT implementation led to demonstrable progress in environmental management, with each country advancing at its own pace and according to its available human and financial capacity, operational environments, and experience levels.
- The GFT represents a new way of working for many programmes and requires a shift of working culture. Changing practices and behaviours takes time, but integration of the GFT represents an opportunity for operators to learn more about environmental concepts in practice and build awareness and transferable skills across teams. The tool is an important step for improving environmental management in mine action.

- Management ownership and support were essential. Roll-out was aided by consistent management communication, which reinforced that this is a strategic direction and a mandatory tool, and that the GFT is a means to comply with the IMAS 07.13. Moreover, clear messaging around the purpose, benefits, and long-term value of the GFT is key to build support and staff commitment.
- The GFT is currently mandatory across all NPA programmes, with the degree of implementation relative to resources available.
   Some factors, including programme size and existing levels of environmental awareness will naturally shape the level and speed of implementation. This report emphasises that in many cases additional financial allocations are required to ensure successful and sustainable implementation.
- GFT integration is heavily dependent on collecting information from local communities, which in many conflict and post-conflict contexts can be viewed as sensitive. Knowledge of climate change and environmental degradation in rural communities can be limited, and this should be reflected in the questions asked by NTS teams. It is also important to assess the country's political situation and review the National Mine Action Authority's (NMAA) legal requirements to ensure full compliance.
- NPA programmes with dedicated environmental staff found the process more manageable, but it is challenging to find funding for a dedicated environmental staff in all programmes. Training and NPA Head Office support for GFT programme focal points helped, while addressing knowledge gaps may require ongoing support.
- The roll-out process gave valuable insights for improving the GFT and its GFT-OSA. Programmes reported that the GFT-OSA saves time, as all datasets are in one place. However, some global data layers in the GFT-OSA, such as the World Database for Protected Areas (WDPA), are more limited in some parts of the world. This can be addressed by manually adding layers at the country level.

# GFT implementation case studies

This publication shares experiences from the GFT roll-out in seven NPA country programmes: Angola, Bosnia and Herzegovina, Cambodia, Yemen, Ukraine, Vietnam and Zimbabwe. Each programme was at a different stage of GFT implementation.

As captured and summed up in this report, their insights and lessons learnt offer valuable guidance and may encourage other demining operators and national mine action authorities to adopt the GFT. All seven programmes are experiencing the effects

of climate change and changing environmental conditions, leading to more standdown days due to extreme weather, and are reporting impacts on the livelihoods of communities.



Children play close to the minefield in Angola. Credit: Sean Sutton/NPA

#### Angola

# Introduction – programme overview and environmental context

NPA's Mine Action and Disarmament Programme was established in Angola in 1995. NPA conducts survey and explosive ordnance clearance, explosive ordnance disposal (EOD), explosive ordnance risk education (EORE) and capacity development to the National Mine Action Authority (NMAA). The NMAA provides some guidance on the environment, which is expected to be updated as the new National Mine Action Standard (NMAS) will be published.

66 GFT is a very good tool to reduce environmental impact in the operational activities.

Gregório Francisco, Information Management Officer/Environment Focal Point, NPA Angola The NPA Angola programme has 76 employees and about 50 of these work in the field. It currently operates in Bengo and Uige provinces, in areas with dense tropical forest and former coffee plantations about 800–1000 metres above sea level. In Bengo province specifically, altitude and extensive canopy cover mean deminers do not experience excessive heat. The climate is stable locally, though other regions face heatwaves and desertification. The canopy cover does limit the GPS signal, meaning the GFT cannot be updated online in the field.

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

The GFT was introduced to some senior staff with support from NPA Head Office in mid-2025, with a full roll-out and staff training planned for the beginning of 2026. Training will need to be provided for the 12 operational management staff across EOD, NTS and clearance teams for Steps 1 - Environmental Profile and 2 - Environmental Assessment and Monitoring, respectively. Currently, the senior management team are ensuring the tool aligns with NMAS and local environmental contexts, that training materials



Filling a GFT question, NPA Angola, 06.11.2025. Credit: Gregório Francisco



PPM2 anti-personnel landmine found by NPA in Angola. Credit: Sean Sutton/NPA.

are translated into the local language, and that they can properly understand and convey all elements of the technical details of the training. The GFT-OSA has also been used, with some issues faced in inputting coordinates and loading data over larger areas. To address these issues, the CEOBS team has modified the GFT-OSA and provided additional guidance for users.

# Local community engagement on the environment

In general, the local community does not show strong environmental awareness. Cutting trees for charcoal and bush burning practices for agriculture and hunting are commonplace - although aside from generating pollution and soil degradation, bush burning is usually controlled. Most communities are free from industry and the potential associated negative environmental impacts. During operations, NPA Angola attempts to minimise vegetation cutting with few trees cut purely for access by operational teams. In the camp sides, only grass covers are usually removed, while trees are saved for providing shade above tents and resting areas.

#### Challenges and lessons learned

NPA's Angola programme anticipates challenges with rolling out GFT due to limited environmental awareness of staff as well as unfamiliarity with environmental terminology. This is especially true given the greatly varying levels of environmental awareness across the team, although senior staff are keen to improve their environmental knowledge and general understanding of the environment and sustainability. Some online training has already been undertaken but there is a need to ensure this is structured and aligns with the aims of the GFT and NPA more broadly. Possible solutions may include collaboration with other NPA programmes to share experiences, as well as greater involvement from head office.

#### Future steps and plans

The GFT focal point and senior NPA staff from Angola will participate in a NPA GFT Africa workshop in Zimbabwe in December 2025. This four-day training will aim to enhance their knowledge in mine action, climate change and environmental issues, as well as improve their technical skills for using the GFT during field operations.

#### Bosnia and Herzegovina

# Introduction – programme overview and environmental context

NPA has been clearing landmines and other explosive remnants of war (ERW) in Bosnia and Herzegovina (BiH) since 1996. At time being, the NPA BiH programme conducts NTS and technical surveys, as well as manual and mine detection dog (MDD)-assisted clearance. They also provide EORE. The programme currently work on projects in the Majevica region, specifically in the mountainous, remote and hard-to-access Suspected Hazardous Areas (SHA) of Brusnica and Piperi. Recently, climate change has resulted in increased rainfall and warmer winters, making work carried out after rain and snow much more challenging and leading to downtime - accounting for 25% of the total operational time - as predominantly muddy roads hinder site access. During this downtime, the team engages in staff training and carries out road repairs and other activities around the task sites.



Mrs. Dzemila Redzic, a beneficiary of NPA released land in Vitinica, Bosnia and Herzergovina. Credit: NPA

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

The programme was one of the first five NPA programmes to conduct a GFT trial in 2024, followed by in-person training held in Sarajevo in December 2024. The programme then conducted an online self-training in March 2025 before officially rolling out the tool. Since April 2025, Step 1- Environmental Profiles have been adopted for the land release operation in the Brusnica and Piperi areas, while Step 2 - Environmental Impact Assessment and Monitoring has been completed for every open task in the programme.

The programme's efforts, combined with early adoption of the tool and consistent training, have resulted in the successful integration of the GFT into field operations. The GFT-OSA supports data collection by providing essential information prior to fieldwork and engagement with local communities, thereby helping to save time. While there are minor differences between GFT-OSA data and the information gathered during site visits, these discrepancies are minimal. Community engagement is critical to the identification of specific environmental risks and vulnerabilities related to operations, such as areas prone to flooding and landslides. Fortunately, no environmental incidents have been reported by the BiH programme.

# Local community engagement on the environment

Communities in the BiH operational area demonstrate a strong level of engagement and awareness regarding environmental and climate issues¹. This knowledge has developed partially as a result of opposition to environmentally harmful activities, such as lithium mining in Majevica, and the protection of vital environmental assets such as rivers. Currently, there are no national environmental requirements toward operators from the NMAA but environmental strategies are being developed at the municipal level. The NPA BiH programme is eager to raise awareness among authorities and views the GFT as an essential part of building the necessary evidence-base to support that effort.

<sup>1</sup> This information was provided during the interview with BiH's GFT focal point.



NPA Deminer working in Sapna municipality, Majevica region, Bosnia and Herzergovina. Credit: NPA

#### Challenges and lessons learnt

NPA BiH identified funding cuts as a key challenge for GFT roll-out by the programme. From a technical perspective, some of the questions in Step 2 were deemed irrelevant to the BiH context as the tool is designed to cover all contexts globally. However, these questions could easily be excluded as the GFT can be modified to meet programme needs. With its seasoned staff the programme reported minimal friction in GFT adoption, demonstrating that the tool is reasonably user-friendly and integrates well into established workflows, particularly for those with strong foundational knowledge.

#### Future steps and plans

Overall, GFT roll-out has been viewed as a successful and beneficial development among NPA BiH's staff. The GFT helped to formalise and streamline staff environmental awareness. The NPA BiH programme aims to integrate the GFT across all projects, ensuring it aligns fully with EORE, NTS, and impact assessment processes. Additionally, the programme plans to develop a centralised dashboard for tracking environmental data to support operational monitoring and planning. It also intends to invest in training staff on environmental awareness and to continuously adapt activities to minimise environmental impacts. The GFT's Step 2 in BiH identified key actions to reduce soil structure impact and

degradation through measures like selecting an EOD method that minimizes cratering and soil damage, and clearing vegetation manually.

66 My house is located on top of the hill, and below it is a forest that has been mined. In the past, there have been many landslides that I, as well as my children, have not been able to repair because of mines. I am afraid that these landslides could endanger the house where I live. This entire area is prone to landslides, and almost all local residents are struggling with them. When the mine clearing is finished, we will be able to solve this and stop further landslides and save the house from further deterioration.

Ruža Spasojević, beneficiary, local community Piperi

#### Cambodia

# Introduction – programme overview and environmental context

NPA has worked in Cambodia since 1992, making land safe for communities affected by landmines, cluster munitions and other ERW. NPA Cambodia has had a consistent presence in the country since then, working with both the Cambodian Mine Action and Victim Assistance Authority (CMAA) and the Cambodian Mine Action Centre (CMAC). Since 2013, NPA has implemented land release in the cluster munition-affected province of Ratanakiri. NPA's operations in Cambodia are increasingly affected by unpredictable seasonal and climatic changes in the area, including droughts, floods and rising temperatures that occur during both rainy and dry seasons. Flooding can disrupt operations, whilst high temperatures adversely impact the health of staff and mine detection dogs, necessitating more frequent breaks.

To adapt, the programme modifies its activities according to the seasons, shifting the plan of fieldwork during the rainy season and concentrating on training and planning instead. In 2021, NPA assisted the CMAA in developing national environmental mine action standards. This positioning established NPA as one of the leading operators in integrating environmental considerations into the sector in Cambodia.



Confirmed hazardous area in Cambodia. Credit: Christina Johnsen

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

The GFT is currently being rolled out in NPA Cambodia. Firstly, Step 1 was done at the district level which helped GFT focal points to get used to GFT. Secondly, NPA Cambodia focused on utilising the Step 2 task-level assessment. This assessment is completed by a rotating group of five to six staff members, typically in the office rather than in the field. During the summer of 2025, the programme completed online training from NPA Head Office, followed by in-person training in August 2025. The programme participated in a regional Southeast Asia GFT workshop in Laos in November 2025, alongside CMAA and CMAC. This event promoted the consistent use of the tool and coordination among operators in Cambodia and the wider region.

### Local community engagement on the environment

The CMAA has been involved in the GFT roll-out, recognising its potential to inform national environmental standards. Internally, NPA Cambodia plans to conduct additional awareness sessions and training to enhance both general environmental knowledge and mine action-specific understanding among staff. Community engagement has not yet been formally integrated into the GFT process, but this is expected to develop as Step 1 - Environmental Profile is rolled out more widely. The expected local community engagement could be carried out through the Mine Action Planning Unit, under CMAA, potentially linking the pre- and postassessment of land release to the community, along with the environment impact. Fostering local-level participation will be crucial for improving data quality and ensuring that environmental considerations are connected to the experience of affected communities.

#### Challenges and lessons learned

NPA Cambodia highlights that some GFT implementation challenges relate to terminology and translation, as certain environmental concepts lack direct equivalents in Khmer. This obstacle can be addressed by consulting with a local environmental partner to ensure effective translation. Further, the programme is working on increasing staff competence on environmental



GTF training to NPA Cambodia's operational staff in Ratanakiri, 12.09.2025. Credit: NPA Cambodia.

management, which will help to oversee the GFT roll-out and related environmental activities. NPA's Head Office is providing close support while the programme's environmental working group is being strengthened to fill this need.

Despite these obstacles, the NPA senior programme management has demonstrated a strong commitment to the use of the GFT and there is significant interest from the CMAA. Initially, some staff considered the GFT to be an additional administrative burden. However, making it a formal requirement and providing a clear explanation of the reasons for using the GFT have greatly improved compliance. Leadership support and interest from the CMAA have been crucial for the GFT's uptake.

#### Future steps and plans

NPA Cambodia plans to enhance its internal use of the GFT by providing additional training and human resources, which may include appointing a dedicated Environmental Officer. The programme also aims to encourage other organisations to adopt the GFT and promote its use on a regional level and hopes to institutionalise environmental screening as a standard practice across mine action efforts in Cambodia.

**66** The GFT represents a significant and innovative step forward in promoting environmental sustainability within the mine action sector. The Cambodian Mine Action and Victim Assistance Authority is optimistic about the potential of this tool to be effectively adapted and utilised within the Cambodian context. Its application could play a vital role in mitigating any potential negative environmental impacts associated with mine action, while also contributing to broader national goals related to sustainable development and climate resilience.

H.E. Chim Chansideth, Director Department of Regulation and Monitoring, CMAA.

#### Ukraine

# Introduction – programme overview and environmental context

NPA deployed to Ukraine in May 2022 with the aim of establishing a comprehensive country programme that includes humanitarian response, mine action and civil society support in the context of Russia's full-scale invasion. The programme currently deploys: 16 NTS teams; 36 manual demining teams; 16 mine-detection dogs; and 19 mechanical assets.

Environmental conditions and climate change significantly impact NPA operations in the Mykolaiv and Kherson regions. During winter, adverse weather conditions such as rain, snow and frost lead to considerable downtime. In the summer, extremely high temperatures hinder operations, as mine detection dogs cannot work in temperatures exceeding 30°C. Starting in 2025, forest fires have made the situation dangerous for the local population, the NPA staff and the wider environment. Additionally, these southern regions suffer from water scarcity, a situation that worsened following the destruction of the Kakhovka Dam in June 2023, affecting local communities, farmers, and businesses, alongside the environmental impact of the conflict itself.

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

NPA Ukraine rolled out the GFT in May 2025. In total, 30 staff members were trained in the office and in the field. NPA Ukraine's Environmental Officer provided a two-day intensive training in the field with the teams, covering analysis of the surrounding environment, location records and form checking. So far, teams have completed 40-50 Step 1- *Environmental Profile* forms, while Step 2 - *Environmental Assessment and Monitoring* remains somewhat more challenging due to the number of questions. Staff may complete forms in the field or in the office, with the office typically being more convenient for reasons of safety and internet connectivity.

The GFT helps to standardise environmental data collection across teams, simplifying site comparisons and helping prioritise relevant mitigation measures. The NPA Ukraine Environmental Officer produced supplementary materials to aid teams with the forms, which include catalogues of invasive plant species, the Red Book protected species from Kherson and Mykolaiv regions, and a survey checklist. Using the tool and supporting materials, a task was flagged for high invasive species risk, leading to precautionary measures to prevent their further spread, including: checking for non-native species; only using clean handsaws; and safeguarding the roots of retained trees.



Teams during on-field environmental training, 12.06.2025. Credit: NPA Ukraine.

Building on this, NPA Ukraine showed concrete examples of GFT application: Step 1- *Environmental Profile* revealed significant deforestation, decreases in rainfall, rising temperatures, and pollution evidence in the surveyed area. Step 2 – *Environmental Assessment and Monitoring* identified a toxic and hazardous waste storage site and recommended 13 specific mitigation measures.

# Local community engagement on the environment

NPA Ukraine primarily demines agricultural land. Since the roll-out of the GFT, NTS teams have been interviewing farmers on environment-related questions. This data contributes to the GFT, but to date has not been a mandatory part of the NTS protocol; for example, farmers are asked whether they have noticed any environmental issues of concern or any unusual natural conditions recently. To enhance clarity, teams rephrase questions in accessible terms. Nevertheless, environmental questions require careful handling, as conflict-affected farmers fundamentally prioritise safety, income and agricultural yields. Insensitive environmental questioning risks farmer disengagement or discomfort.

For NPA Ukraine, the GFT is a well-designed tool for engaging closely with community issues and needs; and exploring ways to deliver environmental benefits as a demining operator. People in the community are generally interested in the GFT and understand the importance of recording this information; they are eager to contribute their insights.

#### Challenges and lessons learned

NPA Ukraine reported that the GFT roll-out was both interesting and challenging. The Environmental Officer facilitated the process by delivering training and translating all relevant materials and forms into Ukrainian, helping to bridge language barriers and enhance staff understanding.

The length and complexity of Step 2 caused some frustration among staff because all though it is structured well, it contains many questions, and some staff felt they were already aware of the environmental and climate conditions collected under Step 1, as NPA has been working in the area



NPA mine clearance operation in Ukraine. Credit: Sean Sutton/NPA

for more than three years. While the GFT has an effective structure, field results indicate Step 2 may be overly comprehensive. Supporting staff with targeted training in environmental topics and hands-on support will work to boost their understanding and maximise the tool's impact.

#### Future steps and plans

NPA Ukraine's Environmental Officer will analyse the collected GFT data to create detailed environmental profiles for Mykolaiv and Kherson. These findings will inform recommendations, SOP revisions, and future operational planning. Moreover, the programme will enhance its reporting capability by adding a dashboard to Survey123 for both Step 1 and Step 2. In parallel, the programme is developing an operationally-tailored waste management system, reflecting its ongoing dedication to environmental stewardship.

We previously overlooked:
waterlogging, soil disturbance,
changes in vegetation, and traces
of waste. Before, these things
seemed routine but now we
understand how they influence
safety, access and work on the site.
It encourages us to observe more
carefully and think long-term.

Vladyslav Kotliarov, NTS Team 12, NPA Ukraine.

#### Vietnam

# Introduction – programme overview and environmental context

NPA has been active in Vietnam since 2007 and currently conducts cluster munition remnant survey work in three provinces across the central and southern regions. Together with NPA's clearance and EOD activities, the programme is thereby able to improve the safety and livelihoods of local communities, provide protection to the most vulnerable people and support local socioeconomic development plans.

The changing climate in Vietnam has had several impacts on NPA Vietnam's operations. The rainy season, flash flooding, cyclones and storms have become more frequent and severe, leading to damage to infrastructure, delays in clearance work, redistribution of ERW and challenges in assessing contaminated areas. In the hot season, high temperatures pose health risks to staff. Other issues, such as rising pollution and land degradation, do not currently cause direct impacts on operations but are significant considerations for future planning.

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

Starting in 2023, NPA Vietnam was the first programme to develop, adopt, and provide



GFT training in Quang Binh Office, 08.05.2025 Credit: NPA Vietnam

feedback on the GFT and its development with the support of dedicated environmental staff. Multiple GFT trainings were delivered through both inperson sessions and online formats to more than 40 staff members from both operations and programme throughout the years. These included Team leaders, the Quality Management Department, Provincial Operation Manager, and the Provincial Programme Manager, with full implementation commencing in May 2025. The tool is now used across all clearance operations, technical surveys and NTS. Updated Standard Operating Procedures formally define that maintaining GFT forms is the responsibility of task supervisors, and Quality Assurance inspections are a part of the standard task documentation review.

Step 1 - Environmental Profile is used at the beginning of every task, while Step 2 - Environmental Assessment and Monitoring is completed subsequently. Since 2023, the programme has developed and tested NTS methodology with an emphasises on environmental and climate components, and NTS teams now have the capacity to perform Step 1 without difficulty. This demonstrates that NTS teams can embed environmental questions in their activities when resources and time allow. However, the GFT-OSA is not yet entirely integrated into workflows.

# Local community engagement on the environment

Local communities and authorities show a strong willingness to participate in environmental surveys. However, some residents are hesitant to share information due to concerns over potential conflicts with local authorities, or because of unsatisfactory past outcomes, for example where the sharing of information did not result in any visible action. To address this, NPA Vietnam staff have increasingly adopted a transparency-first approach. They inform communities that their goal is to enhance understanding of local environmental issues and to minimise the negative impacts of mine action. Locals fear that flooding and landslides may uncover and move unexploded ordnance - this has already occurred - raising risks as these events increase. GFT recorded data on this area can aid operational planning and

prioritisation. Additionally, NPA Vietnam actively gathers local inputs from social media platforms - particularly the Facebook pages of government agencies - to collect information about extreme climate incidents like flooding, wildfires and tropical cyclones.

#### Challenges and lessons learned

A dedicated environmental staff has been crucial for roll-out. Since January 2025 there has been a gap, where the Information Management Manager temporarily assumed the role of GFT focal point. Competing responsibilities limited systematic follow-up, consistency checks, and Quality Assurance. As of November 2025, a full-time staff member has been recruited to manage the implementation of the GFT.

Next steps for the programme are to undertake field assessments aimed at systematically identifying the specific areas where staff understanding is insufficient and consider if additional learning sessions by Vietnamese subject-matter experts is needed. Priority topics may include the study of soil formation, morphology, and classification. The objective is to build a minimum and basic knowledge baseline that supports more accurate and confident field application.

In parallel, technical constraints continue to limit the effective use of tools. Field teams report difficulty opening the Step 2 file due to unstable internet connectivity and the overall size of the GFT form. These constraints reduce real-time usability and can cause delays in data entry. Potential measures include pre-populating context-dependent questions before field deployment, excluding non-applicable questions (e.g., coastal-specific items for inland sites), and reducing file size to better align with the processing capacity of available devices.

#### Future steps and plans

The newly recruited environment staff will conduct analysis of the data collected and provide training as needed on environmental management and climate, adapted to Vietnamese context. For example, involving local specialists such as geologists or agrarians could help teams better



TL Nguyen Xuan Phong, filling GFT forms, 10.09.2025, Credit: NPA Vietnam

understand and recognise soil types and erosion characteristics as they work across diverse environments, which include sandy coastal lands, jungle, agricultural, forest, and mountainous regions. Meanwhile, the revised SOP assigns task supervisor's responsibility for maintaining these forms, with Quality Assurance reviewing them in standard checks. Together, these measures will allow the Vietnam programme to use GFT data effectively to monitor climate impacts and pinpointing vulnerable areas amid rising extreme events.

From an Operations Manager's perspective, I'm pleased with the progress we've achieved here in Vietnam in integrating IMAS 07.13 principles into our routine operational work—both in survey and clearance. Our updated SOP chapters formally define that maintaining these forms is the task supervisor's responsibility, and Quality Assurance now inspects this as part of the standard task documentation review.

Dmitriy Tychkov, Operation Manager, NPA Vietnam.

#### Yemen

# Introduction – programme overview and environmental context

NPA has been actively involved in Yemen's internationally recognised government-held areas since 2017, focusing on addressing urgent humanitarian and protection needs. NPA's interventions in Yemen encompass a diverse range of activities, including NTS and technical surveys, clearance operations, EORE, conflict preparedness and protection initiatives, and the deployment of MDD teams. The NPA Yemen programme has a relatively small set-up, employing around 80 staff members. Of these, 20 work in the office, while around 60 are deployed in the field, where their activities focus on the survey and clearance of ERW.

The main climate challenges affecting operations are increasingly extreme heat and unpredictable heavy rains. Flash flooding has led to power outages and damage to infrastructure. More significantly, it has caused ERW to be displaced into new areas that were previously uncontaminated or already cleared. This situation has resulted in confusion and accidents, which the EORE programme has been deployed to address.

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

GFT implementation and environmental training are at an early stage. Initial training was led by NPA Head Office for the programme's core staff, who in July 2025 subsequently trained Multitask-Team team leaders, the MDD Technical Field Manager, as well as NTS team leaders and team members. The training used materials provided by head office, which included Step 1, conducted as part of NTS, and Step 2, which is to be carried out by the multitasking team, along with general environmental training. GFT-OSA has shown potential to provide a useful preliminary overview for developing Step 1 - Environmental Profile. The programme has noted some inconsistencies between OSA data and what was observed during field visits. especially regarding recent changes in land use. It's important to highlight that data collection should combine multiple sources for the most accurate reflection of field conditions.

#### Challenges and lessons learned

The NPA Yemen programme faces several operational and resource-related challenges. It is the smallest NPA programme in the region, and many staff members take on multiple roles. As a



Multitask team working NTS activity in Marib, October 2025, Credit: NPA Yemen



Multitask working NTS activity in Marib, October 2025, Credit: NPA Yemen

result, GFT roll-out requires harmonisation with other work priorities. One potential solution is to integrate the GFT into the Information Management System for Mine Action (IMSMA). NPA Yemen is looking to collaborate with other mine action operators in Yemen, including Danish Refugee Council, Humanity & Inclusion and the HALO Trust, as well as with larger NPA operations such as NPA Iraq, for models and best practice.

There is a low level of local awareness and engagement regarding environmental and climate issues. This is particularly evident in relation to maintaining environmental health in the long term, including concerns about water quality and green spaces in communities.

#### Future steps and plans

The programme's priorities included completing the training of new teams by late 2025. This training focuses on engaging with the community through structured sessions on environmental issues, potentially utilising EORE, and establishing mechanisms to receive feedback from beneficiaries.

The GFT will be integrated into the programmes climate and environment strategy, as a component of the operation. At the national level, there are

currently no NMAS or guidelines addressing environmental or climate considerations in mine action. The GFT presents an opportunity to create a structured approach to environmental reporting and to encourage engagement from new donors for NPA Yemen.

Yemen is a country on the brink of famine and facing many challenges. Working on climate and environmental issues is extremely important for us. Many flash floods have spread contamination to locations previously known to be safe for unsuspecting land users across the country, and our work on this issue aids both awareness and advocacy across the sector.

Chris Ramsden, Country Director, NPA Yemen.

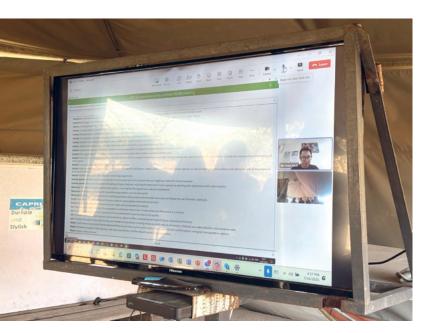
#### Zimbabwe

# Introduction – programme overview and environmental context

NPA's mine action programme in Zimbabwe was established in 2012. NPA Zimbabwe operates manual demining and mine detection dogs in Manicaland and Mashonaland East provinces, near the border with Mozambique. The terrain varies from mountainous and rugged regions to semi-arid, dry areas with water scarcity and high temperatures, as well as wetter southern regions. In some locations, the terrain is particularly challenging; staff report having to sometimes climb uphill for an hour before beginning their work.

NPA Zimbabwe is involved in demining agricultural land and forests, as minefields run along the borders. Areas of land release often include sites that are designated as protected areas, such as cultural or spiritual zones. As a result, NPA teams are trained to respect community customs and regulations, and they are encouraged to report any findings in accordance with these local practices.

The programme has made significant investments in green infrastructure: all bases, offices, and staff housing are now powered entirely by solar energy.



Online GFT training for command staff, NPA Zimbabwe, 16.07.2025. Credit:Previous Mafira.

This shift has eliminated the need for generators and firewood, thereby reducing noise and air pollution and leading to substantial energy savings. NPA Zimbabwe also includes a short session on the environment in its EORE training. It covers various environmental topics, for instance, wet season water harvesting and water management practices.

# GFT roll-out – timeline, training, GFT-OSA use, resource allocation

The GFT was introduced in 2024 as a trial; active roll-out was initiated in 2025 with support from NPA Head Office. It was initially integrated into manual and MDD operations, focusing on reducing environmental impacts such as tree cutting and soil disturbance. A plantation area was chosen for the roll-out of the GFT, as such areas are closely regulated and the people are more aware of environmental and climate challenges. Strong management support has been key to the successful GFT roll-out by NPA Zimbabwe.

GFT integration has enhanced environmental awareness across teams, influencing operational practices like vegetation preservation, waste sorting and water management. Previous experience of using Survey123 helped staff understand data entry and monitoring. The GFT-OSA was recently adopted for environmental data collection and is considered comprehensive but time intensive and labour consuming.

# Local community engagement on the environment

NPA has a close collaboration with the Zimbabwe Mine Action Centre (ZIMAC) who participated in online GFT training and joint field activities, indicating a strong institutional interest in integrating the GFT in programme policy. Additionally, the ecosystem of remediation after demining activities is included in SOPs, with quality assurance conducted by the NMAA.

NPA Zimbabwe collaborates with the Environmental Management Agency (EMA) to ensure compliance with environmental laws. Some members of the community remove landmines during cultivation and continue to farm despite the risks, while



Online GFT training for command staff, NPA Zimbabwe, 16 July 2025. Credit:Previous Mafira.

the practice of burning vegetation for agricultural purposes is regulated by the local government. EORE sessions and NTS activities serve as channels for community environmental messaging and education and data collection for the GFT. The content of EORE sessions emphasises fire management awareness, notably that bush burning violates the law, and promotes water harvesting strategies timed to seasonal rainfall patterns.

#### Challenges and lessons learned

The GFT introduced practices for staff that differed from established habits in land release. However, a high level of environmental awareness among staff and the community in the area that was chosen to roll-out the GFT helped to overcome this challenge.

Users in Zimbabwe called for GFT contextualization, citing irrelevant Step 2 content on floods, earthquakes and coastal features, as well as barriers in understanding terms. A fundamental trade-off exists: comprehensive questions facilitate broader environmental and climate awareness, whereas excessive content undermines practical utility by increasing completion time and reducing contextual relevance.

#### Future steps and plans

NPA Zimbabwe plans to continue its collaboration with ZIMAC and EMA to document best GFT practices for national adoption. Efforts will continue to use and adjust the GFT for Zimbabwe, refining the language with local context and trimming questions that don't apply. The programme planned to strengthen training and refresher sessions during a Regional Africa GFT meeting in December 2025. Additionally, NPA Zimbabwe aims to increase programme visibility through community outreach and environmental awareness campaigns, such as clean-up days and school engagement initiatives.

46 As ZIMAC we acknowledge the GFT and are working with NPA towards improving mine action standards in Zimbabwe.

Rupiya Bernard Quality Assurance officer ZIMAC

# Challenges and limitations

# Knowledge, training and staff adaptation

Implementing the GFT to strengthen environmental management and climate risk assessment requires new policies, practices and knowledge. The introduction of environmental considerations into mine action is relatively new and it will take time for staff to adapt through learning and behavioural change. In country programmes, the limited environmental awareness across all staff levels is one of the major challenges for effective GFT implementation.

Begin with general environmental awareness training. This helps staff understand why and how the environment matters and can begin to change people's behaviour and perceptions. Once general awareness is in place, more specific training on the relationship between the environment and mine action can proceed, followed by GFT training that is tailored to specific job roles. While this training is especially important for the staff that will use the GFT, tailored training should also be provided to programme and operational management to ensure their support, and the appropriate use of the data collected. Particular attention is needed to help staff understand the severity and timeframe of environmental risks, for example whether they are temporary or permanent.

GFT training materials and forms should be translated into local languages and adapted to each country's environmental and climate context. Translation of training materials and GFT forms is important for staff participation. NPA has facilitated regional cooperation for joint translation where the use of the same language makes this possible, such as in the Middle East. Translation can be a challenge as some environmental terms lack direct translations, and collaboration with local environmental organisations is recommended to support accurate translation. Cooperating across the mine action sector in a country can also facilitate and improve translation.

Limited environmental awareness in local communities presents challenges for GFT implementation. It is anticipated that Step 1-Environmental Profile data be collected through informal or unstructured interviews with local people, in addition to desktop study and the use of GFT-OSA. Staff therefore need to be aware of how to contextually adapt and deliver the GFT's questions during these conversations, instead of presenting a formal set of questionnaires. Data collected from local communities helps to verify the GFT-OSA's findings.

# Technical barriers: infrastructure, internet connectivity, access in high-risk countries

In NPA, the GFT is integrated into the Survey123 reporting system. Because of **unstable or absent internet connections** in field operation areas, GFT forms are typically completed in the office after field visits. It is possible to download the forms to a mobile device or tablet and use them in the field without an active internet connection. We also identified that **local security considerations** influence how staff interact with the GFT. For example, in Ukraine the security conditions dictate that NPA teams cannot remain in vehicles in one location for extended periods, they therefore complete their forms back in the office.

GFT's **large file size** can prevent some older tablets and phones from opening it in the field. However, once staff are comfortable using the tool, the guidance, explanation and images can be removed, significantly reducing the file size.

#### Cost and resource constraints

Changing practices and behaviour, and thus implementing the GFT, requires additional financial and human resources, especially in the early stages of implementation. This process has been made more difficult by the global decrease in mine action funding. At the same time, the revised IMAS 07.13, donor requirements and stronger legislation and national standards are setting new expectations for environmental management in mine action. NPA is taking a proactive approach to adapt - and the GFT is the practical way forward for NPA to do so. At the same time, integrating the GFT and environmental considerations may unlock new funding opportunities. For example, demining in ecologically sensitive protected areas could attract support from environmental donors, given its centrality to restoring land access. Another example is the development of more holistic mine action and food security programmes, which address climate and environmental risks in vulnerable communities impacted by climate change and conflict.

Due to **funding constraints and programme size**, not all NPA programmes have dedicated

environmental staff. In these programmes NPA instead has an environmental focal point and appoints dedicated operational staff with responsibilities for the GFT roll-out. These individuals often have multiple responsibilities, limited environmental experience, and require training and management support to allocate time to them to lead effective GFT roll-out. Nevertheless, it is essential to recognise the long-term benefits of the GFT for both staff and local communities, and again here management commitment and priorities are key.

# Context-specific operational hurdles

Before beginning to use the GFT, it is essential to review the country's legal requirements and NMAS. Sensitivities may exist over the collection of environmental data, and it may be necessary to receive official approval from the NMAA. This process may require allocating additional time for advocacy, and for explaining what the GFT is and does, as well as its benefits for mine action, local communities and for the environment.

Programme size is another important consideration; the larger the operation, the more challenging it will likely be to introduce the GFT to all staff. However, in larger operations, it is more likely that there will be funding opportunities to support hiring a dedicated Environmental Officer to manage GFT implementation and environmental and climate mainstreaming.

The experiences of the country programmes that we reviewed for this report demonstrated that the GFT is flexible enough to be adjusted to different operational contexts, as well as to different climatic and environmental conditions. It can also be used in contexts with ongoing armed conflicts, such as Ukraine, although this does require that additional risks are integrated, such as the threat from attack during field data collection and reporting, or exposure to acute environmental risks. It is also necessary to consider how the priorities of the local community may change under different security conditions, and tailor any engagement or data collection activities accordingly.

# Lessons learned

# Critical requirements for GFT implementation

# Management commitment and organisational support

Introducing a new system, such as the GFT, can initially encounter resistance due to established work practices, culture and routines. Strong management support and clear communication from leadership are therefore essential for successful adoption. Programmes noted that new tools and approaches are more readily accepted when they are clearly endorsed and promoted by senior management. Moreover, it is also important to integrate the GFT into a programme's environmental and climate strategy, and its implementation plan.

#### Dedicated environmental personnel

Appointing an Environmental Officer with relevant expertise proved highly effective in facilitating the GFT roll-out. In programmes where such positions are unavailable, assigning GFT Focal Points as part of existing staff responsibilities has ensured continuity and oversight. Cooperation and knowledge sharing on rolling out GFT between different operators will be beneficial at the country and regional level.

#### Trainings, localised materials and GFT forms

Country programmes highlighted the importance of environmental awareness training for all staff.

General training enhances understanding of environmental sustainability and promotes environmentally responsible behaviour, both at work and in daily life. In addition, specialised mine action and environment training, tailored to each country's environmental and climatic conditions, enables teams to apply the GFT more effectively within their operational context. Direct, job-specific training for data entry personnel, as demonstrated in Vietnam, significantly improves data quality. Several programmes have also taken proactive steps to strengthen GFT implementation by developing supporting materials, such as lists of protected and invasive species, environmental field analysis guidance, and other context-specific reference documents.

Translating training materials and GFT forms into local languages helps ensure the engagement of all staff. Cooperation over translations with other programmes that speak the same language could help save time and resources. Some programmes had struggled to translate environmental terms from the GFT into local languages; collaboration with local environmental NGOs could help to resolve this.

#### Operational considerations

All NPA staff are familiar with Survey123; therefore, there were no technical issues with completing

GFT forms. NPA programme staff said that the GFT has a clear layout, step-by-step structure and built-in guidance prompts. They also highlighted that the GFT—OSA is an asset, allowing the consolidation of data from multiple databases, saving time, and simplifying data verification during field visits.

Some challenges were identified, including the time-intensive nature of completing GFT forms, which may affect productivity. However, staff familiarity with their operational regions often offsets this, as local knowledge improves the accuracy and relevance of collected data.

To date, no *Environmental Incidents* have been reported across the NPA programmes we studied. An Incident Reporting Template, available in both Survey123 and Excel formats, has been developed in accordance with TNMA/07.13. This tool standardises reporting procedures and ensures consistent responses to any future environmental events.

#### Outcomes in the studied countries

#### **Awareness**

GFT roll-out in NPA country programmes led to an increase in general environmental awareness among staff through training and completing the GFT forms. People begin to see that environmental considerations improve the outcomes of land release. The GFT also helps increase environmen-

tal awareness among the local population by the questions raised from NTS teams. The mitigation measures for Step 2 - Environmental Assessment and Monitoring should be reviewed and explored in consultation with local communities and landowners to ensure good practice and ownership. There is the potential for GFT data to be used in other activity areas that build environmental and climate risks awareness, for example, NPA Zimbabwe has an environmental session as part of its EORE work.

#### The GFT as an entry point for capacity-building

The GFT enabled programmes to bolster environmental mitigation skills. In Ukraine, for example, the GFT guided the programme in systematically identifying and evaluating environmental risks. Teams became more vigilant about local biodiversity, soil integrity, and potential pollution near wetlands or water bodies. Occasionally, clearance operations were modified based on discoveries, such as steering clear of rare plant habitats or adjusting schedules to avoid bird nesting periods. The tool also unified data collection among teams, streamlining site comparisons and supporting targeted environmental mitigation.

In Zimbabwe, the GFT has assisted in selecting demolition sites appropriately by avoiding areas that are actively used by communities, such as water sources, which must be protected from pollution. Remedial activities are carried out as they progress with their daily operational activities.



TL Nguyen Xuan Phong, assessing water pollution, BAC-411-041, Phong Thai ward, Thua Thien Hue, Vietnam. Credit: NPA Vietnam

# Conclusion and recommendations

The GFT contributes to sustainable mine action by encouraging mine action programmes to plan beyond land clearance and consider long-term post-clearance land use and environmental impacts, as well as comply with IMAS 07.13. Across the seven NPA programmes studied, GFT implementation shows strong potential for supporting land release operations toward integrated environmental stewardship. Implementing the GFT reflects a fundamental reorientation in how mine action operations act on their environmental responsibility, and how they contribute towards post-conflict environmental recovery.

#### Strategic recommendations

To ensure the effective roll-out of the GFT, operators and other users should establish a clear strategic vision for its long-term use. This includes defining objectives for data management, outlining performance expectations, and providing comprehensive operational guidance. If the GFT is adopted as a mandatory reporting and planning instrument for all programmes, it should be supported by adequate financial and human resources to guarantee consistent implementation and data quality.

Donors have a pivotal role to play in advancing environmentally responsible mine action. By

incorporating environmental and climate requirements into funding frameworks, donors can empower but also push demining operators to systematically address environmental impacts. The GFT offers significant potential to enhance environmental accountability by standardising data collection and analysis processes. Its use strengthens sustainable mine action and facilitates planning for environmentally sensitive post-clearance activities.

NMAAs are encouraged to develop or update NMAS on environmental management and climate change, in line with IMAS 07.13. Doing so will establish clear environmental benchmarks for all operators, promote greener operational practices, and enable the integration of the GFT into national information management systems such as IMSMA. The next step for NPA will be to include GFT data into handover reports to national authorities.

Operators should embed the GFT within their environmental and climate strategies to ensure coherence between field operations and organisational sustainability objectives. This integration will help mainstream environmental considerations throughout the mine action cycle, and strengthen alignment between global environmental and climate resilience goals and IMAS 07.13. It is essential to share GFT results with other

operators and NMAAs, particularly where one operator conducts NTS while another subsequently performs clearance.

#### Next steps for improvement

During this research, NPA and CEOBS gathered user feedback on the GFT and GFT-OSA and implemented several improvements based on this. GFT forms will be adjusted, based on the operational context, to organise mandatory and optional questions according to the area level, from regional down to village, to streamline the process and make it more manageable, which is crucial for resource-constrained programmes. Additionally, GFT-OSA has been enhanced with a search bar

that accepts coordinates in latitude and longitude format, provides closer zoom, and highlights the selected location.

In 2026, NPA Head Office and CEOBS will continue to support NPA programmes in implementing the GFT through additional training, consultations, and guidance. As familiarity with the tool increases, we expect to identify further mitigation measures, take action, and improve data analysis across programmes. These efforts will strengthen planning, decision making, stakeholder engagement, and reporting. Several NPA programmes are considering developing a dashboard to consolidate GFT results. NPA also welcomes collaboration with other operators and mine action stakeholders to advance GFT use.



Partyzanske village, Ukraine is surrounded by minefields. Credit: Sean Sutton/NPA

# Annex I: About the Green Field Tool



The Green Field Tool (GFT) <sup>2</sup> is an environmental screening and assessment tool. It allows mine action programmes to systematically identify and address key environmental and climate issues, in line with the data-driven approach applied across the sector.

The GFT is composed of two steps: the first is the Environmental Profile, which is used to better understand the environmental setting of field operations and identify potential risks and vulnerabilities. The second step is *Environmental* Assessment and Monitoring, which focuses on the task-level, and assesses the potential environmental impacts operators may incur, identifying appropriate measures to manage environmental risk. The GFT can support programmes in complying with IMAS 07.13 on environmental management and climate change, and environmental compliance obligations of mine action authorities or donors. It is available both in ArcGIS Survey123 and Microsoft Excel formats free of charge.

The GFT is not a standalone environmental tool for humanitarian mine action interventions but should form part of an overall environmental management system (EMS), including an environmental policy, environmental training of staff, standard operating procedures, quality assurance and a monitoring and evaluation review process.

<sup>2</sup> The GFT is available free of charge from https://environmentinmineaction.org/pages/resources; it is provided without warranty of any kind—explicit or implied—including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement.

# Annex II: GFT roll-out summary table

Table 1. Summary of GFT roll-out by seven NPA programmes

NDA De-			Dana / I	Deed	0	OFT	Food	0574	Ct	Ct	Fau d
NPA Programme	Activities <sup>3</sup>	Climate Zone <sup>4</sup>	Reported Environ- mental & climate issues	Post- conflict	Ongoing conflict	GFT focal point	Environ- mental Officer	GFT training	Step 1	Step 2	Environ- mental incident form
SouthEast Asia											
Cambodia	MMC, NTS, EORE, CMR, EOD	Tropical	Drought, Flood, Heat, Landslide, Rain	*		*		In-person and online 2025, SE Asia Workshop.		*	-
Vietnam	MMC, CMR, EOD, NTS, TS, EORE	Tropical/ Temperate	Drought, Flood, Heat, Land deg., Pollution, Landslide, Rain	*		*		Trial 2023; In-person and online 2023-25	*	*	-
Europe											
Bosnia and Herzegovina	MDD, MMC, EORE, TS, NTS, EOD	Temperate/ Continental	Flood, Landslide, Rain	*		*		Trial + In-person - 2024 + 2025.	*	*	-
Ukraine	TS, NTS, MDD, EORE, MMC, MDT, EOD	Dry/ Continental	Cold, Heat, Forest Fire, Drought		*		*	2 Days in-field - 2025	*	*	-
Africa											
Angola	NTS, TS, EORE, MMC, EOD, MDT	Tropical/Dry/ Temperate	Heat, Land deg, Pollution	*		*		Remote - 2025	×	*	-
Zimbabwe	MDD, EORE, MMC, TS, NTS, EOD	Temperate/ Dry	Drought, Heat, Rain	×		*		Trial 2024; Remote - 2025	*	*	-
Middle East											
Yemen	TS, NTS, MMC, MDD, EORE, EOD	Dry	Heat, Flood, Rain, Landslide		*	*		Remote - 2025	NTS	MTT	-

<sup>3</sup> NTS = Non-Technical Survey, TS = Technical Survey, EORE = Explosive Ordnance Risk Education, MDD = Manual Detection Dog, CMR = Cluster Munition Remnants, MMC = Manual Mine Clearance, EOD = Explosive Ordnance Disposal, MDT = Mechanical Demining Team. 4 Based on Köppen—Geiger climate classification (1991-2020).







