

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION:

UNKNOWN BUT MASSIVE

SUBMUNITION CLEARANCE IN 2022

**51.20** km<sup>2</sup>

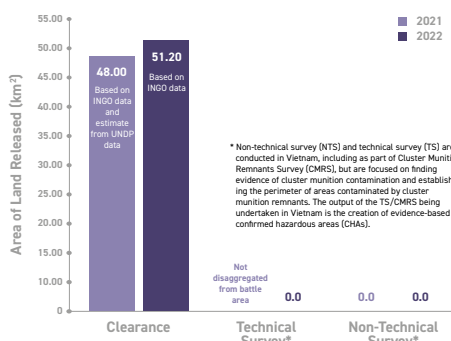
(BASED ON INGO DATA)

SUBMUNITIONS DESTROYED IN 2022

**15,482**

(INCLUDING 1,448 DURING SPOT TASKS)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

In 2022, more than 51km<sup>2</sup> of cluster munition-contaminated area was cleared by international non-governmental organisations (INGOs), an increase on output the previous year. Furthermore, the 132.7km<sup>2</sup> confirmed as contaminated with CMR in 2022 was a 66% increase on the amount confirmed during the previous year. The Vietnam National Mine Action Centre (VNNMAC) continued efforts to strengthen coordination of mine action in Vietnam, with several key achievements in 2022, most notably the approval of new regulations on information management and the revised National Technical Regulations (QCVNs).

The Cluster Munition Remnant Survey (CMRS), for all accessible areas, was completed in Quang Tri province. This is the first time that the level of cluster munition remnant (CMR) contamination within a whole province has been recorded and mapped.

All data sets have now been standardised and combined into one consolidated Information Management System for Mine Action (IMSMA) database. In another positive development, in April 2022, the Mine Action Working Group (MAWG) established sub-task forces focused on capacity development, gender, and the environment, among others.

## RECOMMENDATIONS FOR ACTION

- Vietnam should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- In collaboration with implementing partners, VNNMAC should set a strategy to enhance understanding of the extent of CMR contamination, with a view to establishing a nationwide baseline of CMR contamination. As part of these efforts, VNNMAC should expand non-technical survey (NTS) and technical survey (TS), including use of cluster munition remnant survey (CMRS).
- VNNMAC should elaborate and publish annual work plans for CMR, with clear targets for survey and clearance.
- The revision of National Mine Action Standards (TCVNs), in line with IMAS, should be completed as soon as possible.

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Vietnam National Mine Action Centre (VNMAC)
- Provincial mine action centres and authorities (such as the Quang Tri Mine Action Centre (QTMAC), Quang Binh database and coordination unit (DBCUC), and Thua Thien Hue database unit (DBU), among others)

## NATIONAL OPERATORS

- Ministry of Defence

## INTERNATIONAL OPERATORS

- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- PeaceTrees Vietnam (PTVN)

## OTHER ACTORS

- Association of South East Asian Nations (ASEAN) Regional Mine Action Centre (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Golden West Humanitarian Foundation (Golden West)
- International Committee of the Red Cross (ICRC)
- United Nations Development Programme (UNDP)

## UNDERSTANDING OF CMR CONTAMINATION

Vietnam is massively contaminated by CMR but no accurate estimate exists, even to the nearest hundred square kilometres. An explosive remnants of war (ERW) impact survey, started in 2004 and completed in 2014, was only published in 2018. It said that 61,308km<sup>2</sup> or 19% of Vietnam's land surface area was affected by ERW, but did not specify the area affected by CMR. It found, though, that CMR affected 32 of Vietnam's 63 provinces and cities.<sup>1</sup>

According to VNMAC, the total area still contaminated with bombs, mines, and explosive ordnance in Vietnam was 56,000km<sup>2</sup>, which accounts for approximately 17% of Vietnam's land surface. Contamination is mainly concentrated in central provinces including Quang Tri, Quang Binh, Ha Tinh, Nghe An, and Quang Ngai.<sup>2</sup>

VNMAC does not plan to conduct a separate survey for CMR, and instead is implementing its survey and clearance plan for all types of explosive ordnance.<sup>3</sup> Vietnam is, however, slowly starting to gain a clearer picture of CMR contamination thanks to the expansion of Cluster Munition Remnant Survey (CMRS) into new provinces.

In **Quang Tri province**, one of Vietnam's most contaminated provinces, Norwegian People's Aid (NPA) is conducting a province-wide survey.<sup>4</sup> Estimates of cluster munition-contaminated area are increasing sharply as survey progresses. In April 2023, NPA completed CMRS of all

accessible areas in Quang Tri province. In total, between 2015 and 2023, NPA defined a total of 1,270 confirmed hazardous areas (CHAs), covering 620km<sup>2</sup>, of which more than 177km<sup>2</sup> has already been cleared.<sup>5</sup> The remaining 111 villages in Quang Tri Province continue not to be accessible to international operators for survey,<sup>6</sup> due to national security. QTMAC is said to be interested in exploring the possibility for the military to be trained to conduct CMRS of these remaining villages.<sup>7</sup>

In **Quang Binh province**, a joint consortium between Mines Advisory Group (MAG), NPA, PeaceTrees Vietnam (PTVN), and the Provincial People's Committee (PPC) of Quang Binh, approved in May 2020 the adoption of a CMRS approach.<sup>8</sup> In Quang Binh province, MAG has historically used a NTS methodology – Evidence Point Polygon (EPP) mapping – to map initial CHAs. Since February 2022, MAG was no longer conducting TS in Quang Binh, as NPA has taken this over as part of the US Department of State's Bureau of Political-Military Affairs PM-WRA (PM/WRA) consortium.<sup>9</sup> As at June 2023, TS had been fully completed in 7 out of the 151 communes in the province, with more than 100km<sup>2</sup> of land confirmed as cluster munition-contaminated,<sup>10</sup> of which more than 31km<sup>2</sup> has already been cleared.<sup>11</sup> NPA estimates that, in total, there is some 1,000km<sup>2</sup> of CMR contamination in the province and that it could take 27 years to complete TS, based on current capacity.<sup>12</sup>

1 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam, Based on the Explosive Remnants of War Contamination Survey and Mapping – Phase 1", provided by VNMAC 19 April 2018, p. 38.

2 Email from VNMAC, 14 July 2023.

3 Ibid.

4 Email from Resad Junuzagic, Country Director, NPA, 6 May 2019.

5 QTMAC website, accessed 7 July 2023, at: <https://bit.ly/3rfPNGa>.

6 Email from NPA Vietnam, 16 June 2023.

7 Interview with Jan Erik Støa, NPA, Oslo, 8 June 2023.

8 Email from Jan Erik Støa, NPA, 24 June 2020.

9 Emails from Helene Kuperman, MAG, 31 March 2021; and Valentina Stivanello, MAG, 29 April 2022.

10 Email from NPA Vietnam, 16 June 2023.

11 Quang Binh DBCU website, accessed 7 July 2023, at: <https://bit.ly/3JLTgm2>.

12 Email from NPA Vietnam, 16 June 2023.

In **Thua Thien Hue province**, in collaboration with VNMAC and the provincial authorities, NPA has been implementing CMRS in four districts. Between 2011 and 2022, nearly 19km<sup>2</sup> of CHA had been identified, of which 15.8km<sup>2</sup> is in the western district of A Luoi. In addition to TS, NPA multi-task teams continued to clear CHAs and respond to any explosive ordnance reported to Hue Database Unit (DBU) or through the NPA hotline phone number.<sup>13</sup>

The United States dropped 413,130 tons of submunitions over Vietnam between 1965 and 1973, reportedly striking 55 provinces and cities. Vietnam's Military Engineering

Command has recorded finding 15 types of US-made submunitions. Most submunition types were air-dropped, but artillery-delivered submunitions were also used in central Quang Binh and provinces to the south.<sup>14</sup> Most of the CMR that international operators encounter in Quang Tri province are BLU-26, BLU-29, and BLU-61 submunitions, and occasionally Mk 20 Rockeyes,<sup>15</sup> as well as BLU-63 (in Quang Binh province).<sup>16</sup> In Quang Nam province, almost all the CMR cleared by Danish Demining Group (DDG) were M83 submunitions.<sup>17</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Vietnam has huge contamination from unexploded ordnance (UXO) and an unquantified mine problem (see Mine Action Review's *Clearing the Mines* report on Vietnam for further information). The ERW impact survey identified the most heavily contaminated regions as the central coastal provinces, the Central Highlands, the Mekong River delta, and the Red River delta.<sup>18</sup> The experience of international operators in central Vietnam points to wide variations in contamination types from district to district. International operators report encountering mainly projectiles, mortars, grenades, and some aircraft bombs.<sup>19</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

VNMAC was established in 2014 by Prime Ministerial decree to strengthen the direction of mine action and provide a focal point for mine action operations.<sup>20</sup> VNMAC is under the direct direction of the Prime Minister and the direct management of the Ministry of National Defence (MoD).<sup>21</sup>

Vietnam's mine action programme continues to undergo significant restructuring and strengthening, following the Decree on the Management and Implementation of Mine Action Activities (Decree No. 18), and entered into effect on 20 March 2019, and subsequent approval of a guiding Circular (Circular No. 195) which came into effect in February 2020.<sup>22</sup> Decree 18 is currently the highest-level legal document governing mine action activities in Vietnam and is applicable to all domestic and foreign organisations operating in mine action in Vietnam.<sup>23</sup> Circular 195 provides detailed guidance on the implementation of the provisions of the Decree. Under Decree 18, the MoD continues to be the lead authority for the national mine action programme, in coordination with other relevant ministries and sectors;<sup>24</sup> while VNMAC will, under the direction of the Prime Minister and management of the MoD, "monitor, coordinate and implement mine action tasks".<sup>25</sup>

The Decree and the guiding Circular has, since 2020, given VNMAC a clear mandate, roles, and responsibilities as the national coordinating entity for mine action operations, and this has further established the legal basis for revision and updating of the national regulations (QCVNs) and standards (TCVNs) (please see section on 'Land Release System' for more information on the current status of the QCVNs and TCVNs) and for the adoption of regulations on information management.

Vietnam is preparing to draft an Ordinance for mine action in Vietnam,<sup>26</sup> following the direction of the Prime Minister at the high-level meeting on mine action in February 2022. The planned Ordinance, which will sit above the Decree 18,<sup>27</sup> will be issued by the Standing Committee of the National Assembly of Vietnam. It is expected to be approved in 2024 and will be applicable to all domestic and foreign organisations and individuals involved in explosive ordnance clearance in Vietnam.<sup>28</sup>

13 Ibid.

14 "Vietnam mine/ERW (including cluster munitions) contamination, impacts and clearance requirements", Presentation by Sr. Col. Phan Duc Tuan, People's Army of Vietnam, in Geneva, 30 June 2011; Handicap International, *Fatal Footprint, the Global Human Impact of Cluster Munitions*, Brussels, November 2006, p. 15.

15 Interview with Magnus Johansson, NPA, Hanoi, 17 April 2018, and Michael Raine, MAG, Quang Tri, 18 April 2018.

16 Email from Helene Kuperman, MAG, 23 June 2020.

17 Email from Clinton Smith, Country Director, DDG, 23 March 2017.

18 VNMAC, "Report on Explosive Remnants of War Contamination in Vietnam", Hanoi, 2018, pp. 33-36.

19 Interviews with Resad Junuzagic, NPA, Jan Eric Stoa, NPA, and Magnus Johansson, NPA, Hanoi, 17 April 2018, and with Simon Rea, MAG, and Michael Raine, MAG, Quang Tri, 19 April 2018; and emails from Clinton Smith, DDG, 23 March 2017 and 19 April 2018.

20 Prime Ministerial Decree (No. 738 of 2013) on the management and implementation of mine action activities, Hanoi.

21 STA Capacity Development Project (NPA), 'Vietnamese legal framework in mine action', January 2023.

22 Emails from Jan Erik Støa, NPA, 6 April 2020; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

23 Email from Sarah Goring, MAG, 5 April 2023.

24 Decree on Implementation and Management of Mine Action, No.18/2019/ND-CP, 1 February 2019.

25 Draft Decree on the management and implementation of mine action activities, Hanoi, April 2018.

26 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

27 Ibid.

28 STA Capacity Development Project (NPA), 'Vietnamese legal framework in mine action', January 2023.

VNMAC is entirely nationally funded, and implementation of the National Mine Action Programme (Program 504) is funded by both state and international funding.<sup>29</sup> According to VNMAC, the government has provided support for mine action, including i) establishment of coordinating agencies and associations to support all levels of mine action activities; ii) completion of a legal system, mechanism and policies, which create a legal basis for post-war demining activities (the MoD cooperates with other ministries to develop Circulars guiding QCVNs, TCVNs, and standard operating procedure (SOP) on quality management (QM), survey, and clearance and related issues); iii) facilitation of activities to develop the management and administration capacity, and the survey and clearance capacity, of demining organisations; iv) formation of a national QM system for survey and clearance in accordance international standards; and v) formation of an information management system.<sup>30</sup>

VNMAC's involvement in coordination meetings, such as the Mine Action Working Group (MAWG, previously named the Landmine Working Group (LWGG)), has increased in recent years. The MAWG, which is co-chaired by MAG and the United Nations Development Programme (UNDP),<sup>31</sup> is a platform for all mine action stakeholders in Vietnam to meet quarterly to share and discuss on-going issues and plan for the next quarter.<sup>32</sup> In April 2022, MAWG members established sub-task forces, focused on different areas including capacity development, gender, the environment, victim assistance, and EORE.<sup>33</sup> VNMAC participates in all sub-task force and MAWG meetings.<sup>34</sup> The MAWG met three times in 2022: two full meetings in April and October, and an additional meeting of sub-task force chairs. In 2023, the MAWG was focusing on updating the terms of reference (TOR) for the MAWG; enhancing the functionality of the sub-task forces; and supporting development of the mine action ordinance and the TCVNs.<sup>35</sup>

INGOs reported good cooperation and coordination with VNMAC, with VNMAC continuing to demonstrate a willingness to discuss ideas and challenges with international operators.<sup>36</sup> However, VNMAC still operates within the confines of the MoD.<sup>37</sup> There is a well-established process for granting work permits and visas to international mine action staff and for procurement of demining equipment, although the importation of equipment can be lengthy, depending on the nature of the items.<sup>38</sup>

MAG, NPA, PTVN, the Geneva International Centre for Humanitarian Demining (GICHD), Golden West Humanitarian Foundation (Golden West), and UNDP all provide capacity development support in Vietnam. INGOs resumed hosting familiarisation visits by VNMAC to their offices and operations in 2022, after previous disruption to such visits in 2021, due to COVID-19 restrictions.<sup>39</sup>

In October 2021, MAG entered a three-year Memorandum of Understanding (MoU) with VNMAC to provide technical support and capacity building on explosive ordnance disposal (EOD), clearance, QM, and expanding digital EORE to new provinces. MAG is working with VNMAC to develop a work plan for QM training.<sup>40</sup> NPA is implementing a capacity-development project with VNMAC, with funding from PM/WRA. The project aims to increase VNMAC's capacity to serve as the national mine action centre, ensure a sustainable national information management system, improve planning, prioritisation, and coordination of mine action in Quang Tri and Quang Binh provinces.<sup>41</sup>

NPA also supported VNMAC to establish a fully-equipped mobile bomb cutting team. With support from the US Department of Defense (DoD), an NPA technical advisor conducted training in Hanoi followed by practical experience in Quang Tri province. Eight VNMAC personnel, including one woman, were certified in the use of the bomb cutting tools and methodology, and all equipment – including trailer, saw and X-ray – were handed over to VNMAC.<sup>42</sup>

In 2022, PTVN continued joint efforts to support and help enhance the management and coordination of Quang Tri Mine Action Centre (QTMAC) and VNMAC. In partnership with Golden West, PTVN provides opportunities for VNMAC's trainees to be mentored and gain field practice during their International Mine Action Standards (IMAS) EOD training.<sup>43</sup>

In April 2022, the GICHD visited VNMAC to follow up on the long-term risk management tool.<sup>44</sup>

In 2022, VNMAC took a seat on the global IMAS Review Board for the first time.<sup>45</sup>

29 Email from Tim Horner, Senior Technical Advisor, VNMAC, on behalf of Mr Phuc, VNMAC, 6 April 2021.

30 Email from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

31 Email from Sarah Goring, MAG, 5 April 2023.

32 Email from VNMAC, 14 July 2023.

33 Email from Sarah Goring, MAG, 5 April 2023.

34 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

35 Email from NPA Vietnam, 16 June 2023.

36 Emails from NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

37 Emails from Kimberley McCosker, NPA, 21 April 2022.

38 Email from Jan Erik Støa, NPA, 6 April 2020.

39 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

40 Email from Valentina Stivanello, MAG, 29 April 2022.

41 Email from Kimberley McCosker, NPA, 21 April 2022.

42 Email from NPA Vietnam, 16 June 2023.

43 Emails from Phạm Hoàng Hà, Country Director, PTVN, 9 May and 17 June 2022.

44 Email from Kimberley McCosker, NPA, 13 July 2022.

45 Email from NPA Vietnam, 16 June 2023.

Capacity development partners are also supporting VNMAC to establish regional mine action structures:

In **Quang Binh province** operations under a joint consortium between MAG, NPA, and PTVN commenced in June 2020. The project includes survey, clearance, EOD, risk education and a capacity development component regarding the establishment of a provincial coordination committee and mine action database in Quang Binh province, conducted with the provincial database and coordination unit (DBCU).<sup>46</sup> The DBCU is now fully operational and is responsible for all provincial mine action data and reporting to VNMAC. The DBCU conducts regular coordination meetings for operators in Quang Binh and is responsible for tasking operators.<sup>47</sup> A province-wide prioritisation system has been implemented in Quang Binh since April 2022.<sup>48</sup>

A new tripartite project has been negotiated between VNMAC, KOICA, and UNDP, known as the Korea – Vietnam Peace Village Project (KVPVP). As at June 2023 it had been approved, and was expected to begin in September.<sup>49</sup> KVPVP will implement survey, clearance, EORE, VA and capacity development, focusing on three target provinces (**Binh Dinh, Quang Ngai, and Thua Thien Hue**). It aims to release a total of 150km<sup>2</sup> of explosive ordnance-contaminated land over the five year period (60km<sup>2</sup> in Binh Dinh; 60 km<sup>2</sup> in Quang Ngai; and 30km<sup>2</sup> in Thua Thien Hue).<sup>50</sup>

In November 2022, NPA formally began activities in **Kon Tum province**, and together with the provincial military command (PMC), conducted a field visit to select the locations for EORE activities in 2023. The survey results

indicated a high need for EORE to be conducted in Kon Tum, especially in rural communes and districts which were former battlefields. A high percentage of minority ethnic groups still have a particularly low awareness of the risks associated with explosive ordnance. NPA collaborated with Project RENEW, a national partner from Quang Tri province, to conduct a workshop in Kon Tum to share experience on EORE implementation with key personnel from both civil and military departments at provincial and district levels.<sup>51</sup>

In **Quang Tri province**, the QTMAC plays a lead role in piloting and improving coordination of mine action operations. MAG and NPA continued to support QTMAC through various capacity development initiatives for QTMAC staff. A five-year action plan (2021–25) to implement mine action in the province was released in 2021. QTMAC now conducts QM for mine action operators in Quang Tri province.<sup>52</sup> A QM SOP, developed by QTMAC with support from MAG, NPA, and PTVN, was approved by the Provincial Mine Action Steering Committee in July 2022, and applied from August.<sup>53</sup>

Under the NPA-VNMAC TS project in **Thua Thien Hue province**, the MoD circular for TS (and NTS) was revised and strengthened, and training, management, supervision and monitoring provided for four MoD TS teams. Training was also provided to MoD teams in battle area clearance (BAC), based on NPA's SOPs, enabling MoD teams to directly compare procedures to their own SOPs, learn from NPA best practice, and improve overall clearance efficiency.<sup>54</sup> Two weeks of training was followed by joint deployment on clearance of CHAs in A Luoi district.<sup>55</sup>

## ENVIRONMENTAL POLICIES AND ACTION

Currently VNMAC does not have a TCVN or policy on environmental management. However, in a positive development, in 2022, a sub-task force on the environment was created under the MAWG.<sup>56</sup> VNMAC is considering how and when to incorporate environmental management into the TCNVs.

MAG Vietnam reported having an environmental SOP in place from MAG's Global Technical Standards, which are based on IMAS 07.13 and are followed throughout the survey and clearance process, in the absence of national guidelines.<sup>57</sup> In late 2022, MAG Vietnam started the process to change to its vehicle fleet to use a new high-quality diesel which reduces greenhouse gas emissions.<sup>58</sup>

NPA has developed a green-field tool that assesses environmental impact of mine action operations and includes guidelines for field operators to minimise negative environmental impacts, as well as ways to enhance positive contributions to the ecosystem. The tool is currently being trailed by NPA Vietnam and is scheduled to be implemented across all NPA programmes in 2024.<sup>59</sup> Furthermore, in Thua Thien Hue province, NPA has integrated questions on climate change and the environment into its NTS methodology through the implementation of a new survey approach NPA calls "Total Mine Action Survey" (TMAS). This new approach enables NPA to collect data and assess the impact of explosive ordnance and planned land release operations on the environment. It also enables NPA to collate information on the potential impact of climate change on contaminated areas and the level of climate resilience and disaster

46 Emails from Helene Kuperman, MAG, 10 April, 23 June 2020, and 31 March 2021; Jan Erik Støa, NPA, 24 June 2020; and Phạm Hoàng Hà, PeaceTrees Vietnam (PTVN), 11 May 2021.

47 Email from NPA Vietnam, 16 June 2023.

48 Emails from NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

49 Interview with Jan Erik Støa, NPA, Oslo, 8 June 2023.

50 Email from Havard Bach, Consultant, UNDP, 27 May 2022.

51 Email from NPA Vietnam, 16 June 2023.

52 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

53 Email from NPA Vietnam, 16 June 2023.

54 Emails from Kimberley McCosker, NPA, 21 April and 13 July 2022; and Sean Moorhouse, Senior Technical Advisor to VNMAC, NPA, 5 July 2023.

55 Email from NPA Vietnam, 16 June 2023.

56 Email from Sarah Goring, MAG, 5 April 2023.

57 Emails from Valentina Stivanello, MAG, 29 April 2022; and Sarah Goring, MAG, 5 April 2023.

58 Email from Sarah Goring, MAG, 5 April 2023.

59 Email from NPA Vietnam, 16 June 2023.

response planning. Environmental and climate change data collected through the TMAS is also made available for sharing with relevant external stakeholders, such as national or provincial authorities, to help inform climate change resiliency and adaptation initiatives. As part of the "TMAS", NPA also collects data on current EORE knowledge and potential needs during NTS, as well as on accident and victim records and needs.<sup>60</sup> NPA has also been working to develop new methodologies for soil sampling with a view to better identifying the possible environmental effects from any leaking of dangerous substances from explosive ordnance into the ground. The Hue Technical University has been assisting NPA to test and develop this during survey and clearance. This will be further developed and tested in 2023 as the results are not yet conclusive.<sup>61</sup>

NPA provided environmental training to all operational personnel in May 2022. For bomb cutting and open burning, NPA Vietnam is working in partnership with a local waste treatment facility, to help ensure proper treatment and remediation of any liquid or soil contaminated with residual

substances resulting from these activities. NPA Vietnam is also conducting a small project to support a traditional village in enhancing its capacity for the mass production of sandbags made from a native grass. The project aims to test the feasibility of the sandbags as a replacement for the plastic sandbags commonly used in NPA's EOD operations.<sup>62</sup>

PTVN has an environmental policy which it applies to its all its operations. It supports best practices and methodology to minimise potential harm to the environment from demining operations, including: supporting the project testing, training, and operating the bomb-cutting machine; recycling to minimise one-time use of supplies in field operations (for example, by using rechargeable batteries in operations).<sup>63</sup> PTVN is conducting a project to better understand the current and future impacts of environmental and climate change-related hazards on mine action, by overlaying environmental and climate change data with mine action data to help inform resilience and adaptation planning and operating.<sup>64</sup>

## GENDER AND DIVERSITY

In 2013, Vietnam amended Article 26 of the Constitution so that "male and female citizens are equal in all aspects" and prohibit gender discrimination. State policy is to guarantee equal gender rights and opportunities. In terms of national implementation, women participate more in victim assistance and EORE, while national survey/clearance and information management are still male-dominated and managed by the Vietnam Army.<sup>65</sup> A MAWG sub-task force on gender was established in 2022 and in December of that year MAG co-hosted a workshop in Hanoi on gender mainstreaming with UNDP.<sup>66</sup>

MAG, NPA, and PTVN all have policies and strategies on gender, diversity and inclusion to ensure the equal participation, and their respective operations data are disaggregated by sex and age.<sup>67</sup>

**Table 1: Gender composition of INGO operators in 2022<sup>68</sup>**

Organisation*	Total staff	Women employed	Total staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
MAG	735	211	42	14	686	190
NPA	370	111	52	10	303	80
PTVN	218	47	16	5	184	34

<sup>60</sup> Ibid.

<sup>61</sup> Email from Jan Erik Støa, NPA, 7 July 2023.

<sup>62</sup> Email from NPA Vietnam, NPA, 16 June 2023.

<sup>63</sup> Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

<sup>64</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>65</sup> Email from GICHD, 5 May 2023.

<sup>66</sup> Emails from Sarah Goring, MAG, 5 April and 19 May 2023.

<sup>67</sup> Emails from Simon Rea, MAG, 24 April 2019; Resad Junuzagic, NPA, 6 May 2019; Phạm Hoàng Hà, PTVN, 11 May 2021; and GICHD, 5 May 2023.

<sup>68</sup> Emails from Sarah Goring, MAG, 5 April; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

MAG has increased the overall percentage of female staff employed, particularly in recent years. Compared to the previous year, current data represents a small increase in the overall proportion of female staff and the proportion of women in operational positions, and a more notable increase in the proportion of women in managerial/supervisory level positions, which was 21% in April 2022.<sup>69</sup> MAG promotes equal opportunities in employment and encourages women and people with disabilities to apply for jobs, as well as offering practices such as flexible working for office-based staff where possible and a good policy on maternity leave. Safeguarding continues to be a priority for MAG to ensure that it provides a safe and trusted environment for anyone that comes into contact with its work. In 2022, MAG continued to strength in this area through improved training materials and communications on the topic, and has ensured safeguarding mechanisms are accessible for all staff, including those who do not have access to email.<sup>70</sup>

NPA continues to work towards gender equality in the recruitment process and in the workplace.<sup>71</sup> NPA has established a five-person internal gender working group. The members of the group will be responsible for implementing more comprehensive gender and diversity mainstreaming activities from 2023.<sup>72</sup> NPA continued to promote its all-female BAC team, the first of its kind in Vietnam, to

highlight the important role of women in mine action to national and provincial partners. Gender and diversity mainstreaming remains a priority for NPA when working with national authorities, and NPA Vietnam continues to take every opportunity available to influence VNMAC, QTMAC, the Thua Thien Hue DBU, and the Quang Binh DBCU towards positive gender and diversity mainstreaming.

In addition, NPA's provincial programme manager in Quang Tri province, Nguyen Thi Dieu Linh, met with Prime Minister Pham Minh Chinh during a national mine action event in 2022 hosted by the MoD. During a visit in September 2022 from Ms Bonnie Jenkins, Under Secretary for Arms Control and International Security at the US Department of State, participated in a round table discussion with representatives from MAG, NPA, and PTVN, on the role that women play in mine action.<sup>73</sup>

PTVN has gender and diversity policies in place and ensures equal opportunities for all staff within its recruitment, pay, training, and procedures for promotion. PTVN regularly measures and tracks personnel data, which helps it better mainstream gender and diversity. PTVN operational capacity includes an all-female demining team, led by a female IMAS EOD level 3 team leader.<sup>74</sup>

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## INFORMATION MANAGEMENT AND REPORTING

Information management is a top priority for VNMAC,<sup>75</sup> and in 2022 VNMAC put significant efforts into improving information management and data collection capacity nationwide. Decree 18 and Guiding Circular 195 make VNMAC responsible for the national information management system and give it a clear mandate and legal authority. All provinces and international organisations nationwide are now required to send operational reports to VNMAC.<sup>76</sup> With support from NPA capacity development personnel, VNMAC developed regulations for a national Information Management System. The regulations were subsequently issued by VNMAC on 25 July 2022, following a consultative review process. The regulations establish a national information management system for standardised reporting of all mine action data from across Vietnam's provinces into the national IMSMA database held by VNMAC. The regulations also include the

responsibilities of each stakeholder, including the collection, reporting, and provision of data on mines and ERW. VNMAC now has authority over mine action data, which it is beginning to exercise by requiring all Provincial Military Commands or provincial mine action authorities (if any) to collect and report data to the VNMAC IMU on a quarterly basis,<sup>77</sup> which is a legal requirement of the IM regulations.<sup>78</sup> The adoption of the legal framework also paves the way for provincial authorities to be recognised as having a key role in the reporting system between operators and VNMAC.<sup>79</sup>

Consolidation of data from five different IMSMA databases into one national IMSMA database was finished in December 2022. The consolidated IMSMA system is now operational and well managed in VNMAC. VNMAC said that it was working with all on-going project, as well as with provinces, to collect and consolidate previous data into the national database.<sup>80</sup>

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69 Email from Valentina Stivanello, MAG, 29 April 2022.

70 Emails from Sarah Goring, MAG, 5 April and 7 July 2023.

71 Email from Resad Junuzagic, NPA, 6 May 2019.

72 Email from NPA Vietnam, NPA, 16 June 2023.

73 Emails from NPA Vietnam, NPA, 16 June 2023; and Sarah Goring, MAG, 7 July 2023.

74 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

75 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

76 Email from VNMAC, 14 July 2023.

77 Emails from Kimberley McCosker, Project Manager, NPA, 13 May 2021; and VNMAC, 14 July 2023.

78 Email from Tim Horner, NPA, 7 September 2022.

79 Email from Kimberley McCosker, NPA, 13 May 2021.

80 Email from VNMAC, 14 July 2023.

The national database process continues to be supported by NPA's capacity development project, funded by the PM/WRA. In recent years significant effort has been made to collect and migrate historic data (including paper records from provincial military commands and Landmine Impact Survey (LIS) data), and all known data is now part of the new consolidated national IMSMA database.<sup>81</sup> Representatives from each of Vietnam's 63 provinces and 7 regions, including provincial and regional military commands, have now been trained on how to use the new national information management system, have been given hardware containing IMSMA with all provincial data. This enables each of the provinces to fulfil their obligation to report mine action data into the national database.<sup>82</sup> VNMAC personnel are now capable of conducting IM training without the assistance of US-funded advisors – a significant indicator of VNMAC's desire to have ownership over the national information management system and related trainings, and of their continually increasing capacity for information management.<sup>83</sup> All INGOs/operators can access the provincial IMSMA database through the approval of the provincial authorities where they work, or they can make a request to VNMAC for the information.<sup>84</sup>

VNMAC has now standardised the IMSMA reporting forms and all operators use the same forms, having developed the templates through a series of workshops, including consultation with international and national experts. The templates were also piloted by experienced provincial authorities such as QTMAC and Hue DBU.<sup>85</sup> The standardised forms help enable VNMAC to routinely collect and input new mine action information into the centrally-owned standardised database.<sup>86</sup> Operators report to the database units in the province where they operate, and the provincial database units then report to VNMAC.<sup>87</sup> In addition, operators also send annual reports to VNMAC directly, as requested by VNMAC.<sup>88</sup> As at May 2023, 12 of the 63 provinces had reported mine action data to VNMAC – a number which VNMAC expects to rise, as it continues to provide direction for reporting to the remaining provinces.<sup>89</sup>

A Circular adopted in October 2021, relating to the QM procedure in survey and clearance, includes articles regulating the information QM process.<sup>90</sup> The provinces are responsible for quality assurance (QA) of data, typically by

the respective DBU or PMC. VNMAC quality checks data for consistency and completeness. VNMAC is also responsible for the QA of the data received by the commercial operators.<sup>91</sup>

In **Quang Binh** province, MAG initiated a partnership with NPA and PTVN in October 2019, which includes support to the provincial department of foreign affairs to establish a central database in the province, based on the Quang Tri database unit model.<sup>92</sup> NPA is responsible for the capacity development to the Quang Binh DBCU, which is also supported by VNMAC.<sup>93</sup> The reporting system and tasking from the Quang Binh DBCU became effective in 2021 and is said to have been conducted efficiently by the DBCU, with the DBCU reporting to the VNMAC.<sup>94</sup> The operators in Quang Binh (MAG, NPA, and PTVN) report their data to the DBCU, which in turn reports quarterly to VNMAC.<sup>95</sup>

In **Quang Tri province**, the QTMAC database unit is able autonomously to collect, collate, analyse, and task operators based on information shared by all mine action stakeholders in the province (domestic and international, civilian and military).<sup>96</sup> The database provides a basis for effective planning and tasking. Data hosted at QTMAC's DBU are believed to be accurate and up to date, and have been the catalyst for greater coordination across all stakeholders within the province.<sup>97</sup> Clearance operators in Quang Tri report to QTMAC, and QTMAC then reports to VNMAC on a quarterly basis.<sup>98</sup>

In October 2021, a project was established for NPA to support the creation of the **Thua Thien Hue** Department of Foreign Affairs (DoFA) database unit, and the DBU was operational from November. Norway supports the salaries of the five DBU officers, equipment, and running costs. Training in IMSMA was provided by NPA and VNMAC in March 2022 and all five DBU personnel were accredited. NPA, the only international operator in Thua Thien Hue, is reporting operational data to the DBU, and they are subsequently reporting to VNMAC.<sup>99</sup>

According to international INGOs, Binh Dinh is the next key province that VNMAC wants to focus on.<sup>100</sup>

81 Emails from NPA Vietnam, NPA, 16 June 2023; and VNMAC, 14 July 2023.

82 Emails from Kimberley McCosker, NPA, 21 April 2022; Tim Horner, NPA, 7 September 2022; and NPA Vietnam, NPA, 16 June 2023.

83 Email from NPA Vietnam, NPA, 16 June 2023.

84 Ibid.

85 Email from VNMAC, 14 July 2023.

86 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

87 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

88 Email from NPA Vietnam, 16 June 2023.

89 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

90 Email from VNMAC, 14 July 2023.

91 Email from NPA Vietnam, 16 June 2023.

92 Email from Helene Kuperman, MAG, 10 April 2020.

93 Email from Kimberley McCosker, NPA, 8 April 2021.

94 Ibid., 21 April 2022.

95 Email from Havard Bach, UNDP, 27 May 2022.

96 Email from Helene Kuperman, MAG, 10 April 2020.

97 Emails from Resad Junuzagic, NPA, 6 May 2019; and Jan Erik Støa, NPA, 24 June 2020.

98 Email from Sarah Goring, MAG, 5 April 2023.

99 Email from Kimberley McCosker, NPA, 21 April 2022.

100 Ibid.



## PLANNING AND TASKING

Decision on Programme 504, approved by the Prime Minister in April 2010, set out a National Mine Action Plan for 2010–25. The plan, which covers mines, CMR, and other ERW, aimed to “mobilize domestic and international resources in making efforts to minimize and finally create impact-free environment for social economic development.” The programme foresees completing an impact survey to map contamination nationwide, developing national standards, and establishing a database management centre.<sup>101</sup> It called for clearance of 8,000km<sup>2</sup> of ERW between 2016 and 2025.<sup>102</sup> Vietnam does not yet have a strategy specifically targeting CMR and plans to address all ERW comprehensively. VNMAC would benefit from elaborating a national mine action strategy and annual work plans for CMR, with clear targets for survey and clearance.

During the national conference to review the achievement of Programme 504 in February 2022 in Hanoi, VNMAC shared the 10-year report on the progress and achievements of Vietnam on mine action (i.e. survey, EOD, clearance, risk education and victim assistance).<sup>103</sup> VNMAC also shared the five-year National Mine Action Plan (2021–25), which has been developed to implement the final period of the current National Mine Action plan. The plan, which was elaborated by the government without input from INGOs or other members of the then LWG (now the MAWG), also seeks to develop and implement TS of “zoning areas” confirmed as contaminated by mines and ERW, as the basis for strategic planning.<sup>104</sup> In June 2022, VNMAC said the five-year plan was still undergoing Prime Ministerial review regarding two final issues concerning the budget and capacity for implementation of the plan.<sup>105</sup> In June 2023, the National Action Plan in Mine Action 2023–25 (now a three-year plan), submitted by the MoD, was approved by the Prime Minister.<sup>106</sup>

VNMAC had an annual work plan for 2022<sup>107</sup> and has one for 2023 too,<sup>108</sup> but neither report has been shared externally.<sup>109</sup>

VNMAC has said that its mission for the period 2021–25 includes objectives to complete the organisational structure and legal framework and policies; ensure effective mine action management; foster international cooperation to mobilise necessary resources; complete the information management system for mine action nationwide; and implement survey and clearance activities over 5,000km<sup>2</sup>, with priority in heavily contaminated areas.<sup>110</sup>

There is currently no national prioritisation system for CMR clearance<sup>111</sup> and at present there is insufficient data in the national IMSMA database to prioritise on a task-by-task basis. Prioritisation at the task or lower administrative levels is currently the responsibility of provinces.<sup>112</sup>

In **Quang Binh province**, the system for reporting and tasking by the provincial DBCU became effective in 2021 and is said to have been conducted efficiently by the DBCU, with the DBCU reporting to the VNMAC.<sup>113</sup> A province-wide prioritisation system is now being applied in Quang Binh province.<sup>114</sup>

In **Quang Tri province**, there is a prioritisation process in place and an effective system for task allocation, both managed by QTMAC.<sup>115</sup> The criteria for prioritisation were established based on consultation and agreement between QTMAC and operators. The QTMAC tasks all mine action operators in the province and annual work plans are approved by provincial authorities, in cooperation and dialogue with operators.<sup>116</sup>

In **Thua Thien Hue province**, tasking for INGO operators is decided by provincial authorities in accordance to the provincial socio-economic development plan.<sup>117</sup>

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Vietnam has both National Technical Regulations (QCVNs), which are mandatory and similar in content to SOPs, and National Mine Action Standards (TCVNs), which despite being standards are considered optional by VNMAC.<sup>118</sup>

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101 STA Capacity Development Project (NPA), ‘Vietnamese legal framework in mine action’, January 2023.

102 Prime Minister, “Decision on Approval of the National Mine Action Plan Period 2010–2025”, Hanoi, 21 April 2010.

103 Emails from Valentina Stivanello, MAG, 29 April 2022; and Phạm Hoàng Hà, PTVN, 9 May 2022.

104 Emails from Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021; Valentina Stivanello, MAG, 29 April and 20 June 2022; and Kimberley McCosker, NPA, 22 June 2022.

105 Interview with Mr Phuc, VNMAC, Geneva, 23 June 2022.

106 Email from NPA Vietnam, 7 July 2023.

107 Email from Kimberley McCosker, NPA, 21 April 2022.

108 Email from VNMAC, 14 July 2023.

109 Email from NPA Vietnam, 16 June 2023.

110 Email from Doan Thi Hong Hai, Capacity Development Project Officer, NPA, on behalf of Mr Phuc, VNMAC, 3 June 2022.

111 Emails from Sarah Goring, MAG, 5 April 2023 and NPA Vietnam, 16 June 2023.

112 Email from Kimberley McCosker, NPA, 21 April 2022.

113 Ibid.

114 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

115 Emails from Simon Rea, MAG, 16 June 2019; Resad Junuzagic, NPA, 6 May 2019; Helene Kuperman, MAG, 31 March 2021; Phạm Hoàng Hà, PTVN, 11 May 2021; and Kimberley McCosker, NPA, 13 May 2021.

116 Emails from Jan Erik Støa, NPA, 6 April 2020; Simon Rea, MAG, 24 April 2019; Helene Kuperman, MAG, 31 March 2021; and Phạm Hoàng Hà, PTVN, 3 May 2023.

117 Email from Jan Erik Støa, NPA, 6 April 2020.

118 Email from Resad Junuzagic, NPA, 6 May 2019.

VNMAC made significant progress in recent years to review and update the QCVNs to help bring them into line with IMAS.<sup>119</sup> The former QCVNs and existing TCVNs were drafted more with the MoD in mind, used terminology inconsistently, and chapters contradicted themselves.<sup>120</sup> INGOs welcomed the inclusiveness of the revision process,<sup>121</sup> which involved the establishment of four working groups, co-chaired by VNMAC, and extensive consultation with operators and international organisations, including the GICHD.<sup>122</sup>

A guiding Circular (No. 59)<sup>123</sup> was issued by the MoD on 30 August 2022 to promulgate the QCVNs, which include general provisions, technical regulations, regulations on safety and on management, responsibilities of organisations and individuals, and organisation and implementation.<sup>124</sup> The revised QCVNs were approved in September 2022,<sup>125</sup> and rolled out across operators. VNMAC announced in a MAWG meeting that training would be given on the new QCVNs, but as at April 2023 this had yet to take place.<sup>126</sup> In Quang Tri, QTMAC coordinated amongst operators to provide a consolidated report to VNMAC on any discrepancies between the QCVNs and operator SOPs.<sup>127</sup>

Revision of the TCVNs is still underway. As at June 2023, fourteen TCVNs had been completed and were awaiting approval and one on risk management was in progress, which the GICHD was helping VNMAC to finalise.<sup>128</sup> VNMAC expected the review of the TCVNs to be completed in the last quarter of 2023.<sup>129</sup> A further TCVN on environmental protection in mine action is also expected to be developed.<sup>130</sup>

A corresponding Circular (Circular 121) related to the revised NTS, TS, and clearance procedures was issued in September 2021, in addition to Circular 122 on guidelines for determining the rate per shift of demining machines and equipment and Circular 122 on guidelines for determining estimated norm and managing costs in the explosive ordnance clearance estimates.<sup>131</sup>

Circular 195 covers the whole QM system. In addition, QTMAC developed a field-orientated QM SOP which was approved by the Provincial Authority in July 2022, for use in Quang Tri province.<sup>132</sup> A corresponding Circular relating to the QM procedure in survey and clearance, was adopted in October 2021.<sup>133</sup>

## OPERATORS AND OPERATIONAL TOOLS

Most clearance in Vietnam is conducted by the Army Engineering Corps and military-owned commercial companies. Outside the central provinces, the current strength and deployment of military-related demining is unknown.

Vietnamese officials have previously reported that it had 250 mine clearance and BAC teams nationally. Vietnam reportedly has more than 70 military-owned companies undertaking clearance related to infrastructure and commercial and development projects.<sup>134</sup>

International operators active in 2022 included: MAG, working in Quang Binh and Quang Tri provinces; NPA, working in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and most recently also in Kon Tum province since late 2022; and PTVN, who have been working in Quang Tri province since 1995 and now also in Quang Binh.<sup>135</sup>

119 Emails from Kimberley McCosker, NPA, 8 April 2021; and Helene Kuperman, MAG, 31 March 2021.

120 Emails from Resad Junuzagic, NPA, 6 May 2019; Jan Erik Støa, NPA, 6 April 2020; and Helene Kuperman, MAG, 10 April 2020.

121 Email from Kimberley McCosker, NPA, 8 April 2021.

122 Emails from Kimberley McCosker, NPA, 8 April 2021 and 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; GICHD, 24 April 2022; and Tim Horner on behalf of Mr Phuc, VNMAC, 6 April 2021.

123 Circular No. 59/2022 on promulgation of the National Technical Regulations (QCVN) in mine action.

124 STA Capacity Development Project (NPA), "Vietnamese legal framework in mine action", January 2023.

125 Email from Tim Horner, NPA, 7 September 2022.

126 Email from Sarah Goring, MAG, 5 April 2023.

127 Ibid.

128 Interview with Mr Hop, VNMAC, Geneva, 22 June 2023.

129 Email from VNMAC, 14 July 2023.

130 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

131 "Vietnamese legal framework in mine action", January 2023; and email from Sarah Goring, MAG, 5 April 2023.

132 Emails from Kimberley McCosker, NPA, 8 April 2021; and Tim Horner, NPA, 7 September 2022.

133 "Vietnamese legal framework in mine action", January 2023; and emails from Sarah Goring, MAG, 5 April 2023; and VNMAC, 14 July 2023.

134 Interview with Sr. Col. Nguyen Thanh Ban, Engineering Command, Hanoi, 18 June 2013; email from Executive Office of the National Steering Committee, 6 August 2012; and interviews with mine action stakeholders, Hanoi, 16–20 April 2018; and email from Lee Moroney, Golden West Humanitarian Foundation, 22 June 2019.

135 Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam, 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

In 2022, MAG deployed 41 clearance teams, totalling 410 deminers (excluding team leaders, deputy team leaders, and medics),<sup>136</sup> which was an increase on the capacity in 2021 (40 clearance teams, totalling 360 deminers).<sup>137</sup> Clearance personnel also conduct TS, but MAG stopped conducting TS in February 2022 and those TS teams transferred to clearance. MAG also deployed two NTS teams in 2022, totalling four community liaison officers.<sup>138</sup> This represents a significant drop in NTS capacity, compared to the seven NTS teams, totalling fourteen community liaison officers, deployed in 2021.<sup>139</sup>

Clearance teams are supported by manual vegetation-cutting teams to prepare the ground. MAG has found those teams greatly increase the efficiency of the clearance teams, as personnel can focus on clearance without diversion to the clearing away of vegetation. MAG has a total of 14 clearance support teams, totalling 70 employees. In addition MAG deploys two multi-task teams (MTTs) conducting emergency EOD spot tasks (one in each province, with each MTT comprising a team leader, a deputy team leader, four deminers and a medic).<sup>140</sup> As at April 2023, MAG continued to use a drone in Quang Tri province.<sup>141</sup>

In 2022, NPA continued operations in Quang Binh, Quang Tri, and Thua Thien Hue provinces, and conducted capacity development activities with VNMAC in Hanoi and provincial mine action units in Quang Tri, Quang Binh, and Thua Thien Hue provinces. In addition, NPA formally began activities in Kon Tum province in November 2022, starting with EORE. NPA personnel and the PMC jointly conducted a field visit to select the locations for EORE activities in 2023.<sup>142</sup> In 2022, NPA Vietnam had a total of 7 NTS teams (totalling 15 personnel); 14 TS teams (totalling 87 personnel); 10 clearance

teams (totalling 131 personnel), and five mechanical assets. Following the completion of TS in Quang Tri, in April 2023, 10 TS teams were retrained as clearance personnel.<sup>143</sup> The operational data feedback loop and sharing of knowledge between MAG and NPA as part of their partnership in Quang Tri continues and will also be replicated in Quang Binh province.<sup>144</sup>

NPA is implementing an upgraded CMRS methodology (CMRS Version 6) in Quang Tri province, following a field trial from December 2021 to March 2022. The trial sought to increase efficiency of NPA's TS methodology by trialling a revised eight-person team structure, searching only three sub-boxes and identifying only one green fadeout box on the boundary of each CHA. Based on the successful trial of this methodology, CMRS Version 6 has been successfully implemented by all TS teams in Quang Tri province, resulting in doubling of daily productivity and reducing the time required for completing TS tasks.<sup>145</sup>

PTVN operates in Quang Tri province and from June 2020, extended its programme into Quang Binh province. After a lengthy approval process, PTVN's field operations began in Quang Binh province in early 2021.<sup>146</sup> PTVN undertakes EOD, clearance, and integrated risk education, but does not conduct CMRS.<sup>147</sup> In 2022, PTVN deployed 11 BAC teams and 2 MTTs in Quang Binh (whose main responsibility was EOD spot tasks, but which if available, also conducted CHA clearance), with a total of 184 technicians. Capacity in 2022 was an increase on 2021, with one additional BAC team in Quang Tri and four MTTs in Quang Binh scaled up to 2 MTTs and 2 BAC teams, plus and 1 vegetation cutting team and 2 field operation assistants.<sup>148</sup>

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136 Email from Sarah Goring, MAG, 5 April 2023.

137 Email from Valentina Stivanello, MAG, 29 April 2022.

138 Email from Sarah Goring, MAG, 5 April 2023.

139 Email from Valentina Stivanello, MAG, 29 April 2022.

140 Emails from Valentina Stivanello, MAG, 20 June 2022; and Sarah Goring, MAG, 19 May 2023.

141 Email from Sarah Goring, MAG, 5 April 2023.

142 Email from NPA Vietnam, 16 June 2023.

143 Ibid.

144 Emails from Helene Kuperman, MAG, 10 April 2020; and Kimberley McCosker, NPA, 8 April 2021.

145 Email from NPA Vietnam, 16 June 2023.

146 Email from Phạm Hoàng Hà, PTVN, 11 May 2021.

147 Ibid.

148 Email from Phạm Hoàng Hà, PTVN, 9 May 2022.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2022

In 2022, a total of approximately 51.2km<sup>2</sup> of cluster munition-contaminated area was cleared by INGOs in Vietnam (see Table 2). No clearance was conducted under the KV-MAP project, for which operations ended in 2021 and the next phase of the project had yet to begin. No data has been made available on CMR clearance by the Army Engineering Corps or military-owned commercial companies. A total of at least 15,482 submunitions were reported to have been destroyed in 2022: 8,684 during clearance, 5,350 during TS, and 1,448 during EOD spot tasks, based on INGO data.

### SURVEY IN 2022

As at July 2023, VNMAC was still consolidating 2022 survey data reported by the provinces, into the national database.<sup>149</sup> VNMAC reported that NTS by INGOs had been completed in 126 villages in 2022 (19 by MAG in Quang Binh and 107 by NPA (78 in Quang Binh, 25 in Quang Tri, and 4 in Thua Thien Hue)).<sup>150</sup>

Based on data from INGOs, nearly 132.74km<sup>2</sup> was confirmed as contaminated with CMR in 2022 in Quang Binh, Quang Tri, and Thua Thien Hue provinces (see Table 2), during which 5,350 submunitions were destroyed.<sup>151</sup> This was a significant increase on the 82km<sup>2</sup> of area confirmed in 2021.<sup>152</sup>

**Table 2: Technical survey of cluster munition-contaminated area in 2022 (based on INGO data)<sup>153</sup>**

Operator	Province	Area surveyed (m <sup>2</sup> )	Area confirmed (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
MAG	Quang Binh	*725,000	342,176	15	0
NPA	Quang Binh	12,902,500	29,592,453	807	134
NPA	Quang Tri	56,537,500	101,178,259	4,480	3,386
NPA	Thua Thien Hue	690,000	1,623,073	48	26
<b>Totals</b>		<b>70,855,000</b>	<b>132,735,961</b>	<b>5,350</b>	<b>3,546</b>

\* The total area surveyed included box skipping, of which 457,500m<sup>2</sup> was physically surveyed.

MAG confirmed just over 0.34km<sup>2</sup> as containing CMR in 2022,<sup>154</sup> a huge decrease on the more than 10.75km<sup>2</sup> confirmed the previous year.<sup>155</sup> The decrease was because MAG stopped conducting TS in February 2022.<sup>156</sup> NPA increased the amount of land it surveyed in 2022, largely as a result of enhanced CMRS methodology implemented in Quang Tri province, following the previously mentioned field trial. NPA confirmed nearly 132.4km<sup>2</sup> as containing CMR in 2022, an 86% increase on the 71.1km<sup>2</sup> confirmed as CHA the previous year.<sup>157</sup> In Quang Tri, one of Vietnam's most heavily contaminated provinces, NPA completed NTS of all available villages in April 2023, just leaving 111 villages which are not accessible to international operators for survey.<sup>158</sup>

149 Email from VNMAC, 14 July 2023.

150 Ibid.

151 Emails from Sarah Goring, MAG, 5 April 2023; and NPA Vietnam, 16 June 2023.

152 Emails from Kimberley McCosker, NPA, 21 April 2022; and Valentina Stivanello, MAG, 29 April 2022.

153 Emails from Sarah Goring, MAG, 5 April 2023; and NPA Vietnam, 16 June 2023. VNMAC also reported the same amount of area technically surveyed by INGOs in 2022 and almost the same amount of area confirmed as containing CMR (the difference in VNMAC data was that it did not include the 342,176m<sup>2</sup> of hazardous area confirmed by MAG in Quang Binh) (email from VNMAC, 14 July 2023).

154 Ibid.

155 Email from Valentina Stivanello, MAG, 29 April 2022.

156 Email from Sarah Goring, MAG, 5 April 2023.

157 Email from NPA Vietnam, 16 June 2023.

158 Ibid.

## CLEARANCE IN 2022

A total of more than 51.2km<sup>2</sup> of cluster munition-contaminated area was cleared in 2022, with the destruction of 10,132 submunitions (8,684 during clearance and a further 1,448 submunitions during spot tasks), based on INGO data. As already mentioned above, a further 5,350 submunitions were destroyed during TS.<sup>159</sup> INGO CMR clearance in 2022 was an increase on the equivalent clearance in 2021 of 48km<sup>2</sup> of cluster munition-contaminated area.

VNMAC reported a slightly higher total of nearly 51.4km<sup>2</sup> for the total cleared by INGOs in 2022 (of which nearly 48.33km<sup>2</sup> was agricultural land, nearly 0.05km<sup>2</sup> was development land, and nearly 3.02km<sup>2</sup> was clearance of "other land"). It said that a total of 15,625 submunitions, 28 bombs, and 26,060 landmines and other explosive ordnance had been discovered and destroyed by INGOs during the year (during survey, clearance, and spot tasks). As at July 2023, VNMAC was still consolidating 2022 clearance data reported by the provinces, into the national database,<sup>160</sup> which is presumed to include clearance by commercial operators and the military. VNMAC said that there was not yet enough data to compare the amount of land cleared in 2022 with that of the previous year.<sup>161</sup>

**Table 3: CMR clearance in 2022 (based on INGO data)<sup>162</sup>**

Operator	Operator	Area cleared (m <sup>2</sup> )	Submunitions destroyed	Other UXO destroyed
Quang Binh	MAG	10,244,008	3,505	2,375
Quang Binh	PTVN	1,478,140	246	145
Quang Tri	MAG	24,077,850	2,958	5,397
Quang Tri	NPA	7,295,832	1,209	2,464
Quang Tri	PTVN	6,608,875	208	3,594
Thua Thien Hue	NPA	1,500,115	558	587
<b>Totals</b>		<b>51,204,820</b>	<b>8,684</b>	<b>14,562</b>

N/K = not known

In addition, 1,448 submunitions were destroyed during EOD spot tasks in 2022 (MAG destroyed 360 submunitions (330 in Quang Binh and 30 in Quang Tri);<sup>163</sup> NPA destroyed 40 submunitions (27 in Thua Thien Hue and 13 in Quang Tri);<sup>164</sup> PTVN destroyed 1,048 submunitions (115 in Quang Tri province and 933 in Quang Binh province).<sup>165</sup>

MAG's clearance of more than 34.3km<sup>2</sup> in 2022, was an increase of some 2km<sup>2</sup> on output the previous year.<sup>166</sup> NPA's clearance of nearly 8.8km<sup>2</sup> in 2022, was an increase on the 7.3km<sup>2</sup> cleared the previous year.<sup>167</sup> PTVN's CMR clearance output of nearly 8.1km<sup>2</sup> in 2022, was an increase on the 6.6km<sup>2</sup> cleared in 2021, and was achieved through increased clearance capacity. In addition to clearance of CHAs containing CMRs, PTVN also cleared a further 160,774m<sup>2</sup> in Quang Tri and Quang Binh in 2022, for the purpose of community development (request-based clearance), during which it found and destroyed 74 submunitions and 314 other types of explosive ordnance. In addition to submunitions and other ERW, PTVN also found one anti-personnel mine during CMR clearance in 2022 and six anti-personnel mines during EOD spot tasks.<sup>168</sup>

<sup>159</sup> Emails from Kimberley McCosker, NPA, 21 April 2022; Valentina Stivanello, MAG, 29 April 2022; Phạm Hoàng Hà, PTVN, 9 May 2022; and Havard Bach, UNDP, 27 May 2022.

<sup>160</sup> Email from VNMAC, 14 July 2023.

<sup>161</sup> Ibid.

<sup>162</sup> Emails from Sarah Goring, MAG, 5 April 2023; NPA Vietnam 16 June 2023; and Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>163</sup> Email from Sarah Goring, MAG, 5 April 2023.

<sup>164</sup> Email from NPA Vietnam, 16 June 2023.

<sup>165</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

<sup>166</sup> Emails from Valentina Stivanello, MAG, 29 April 2022 and Sarah Goring, MAG, 5 April 2023.

<sup>167</sup> Email from NPA Vietnam, 16 June 2023.

<sup>168</sup> Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

## PROGRESS TOWARDS COMPLETION

Vietnam has not set a target date for the completion of CMR clearance. In its national mine action plan for 2010 to 2025 it called for the clearance of 8,000km<sup>2</sup> of ERW from 2016 to 2025<sup>169</sup> but did not specify how much of this should be CMR. The lack of a baseline of CMR contamination and a lack of information at a national level about ongoing survey and clearance across the country makes it difficult to understand both Vietnam's annual progress in reducing CMR contamination and how this contributes to the completion of CMR clearance. However, it is a positive development that VNMAC is beginning to support the expansion of CMRS – from in Quang Tri and Thua Thien Hue provinces, into new provinces, such as the US-funded consortium project in Quang Binh.<sup>170</sup>

VNMAC said that COVID-19 had a considerable effect on survey and clearance operations in 2022.<sup>171</sup> MAG reported that the COVID-19 pandemic continued to disrupt its operations in 2022, especially in the first quarter, when significant numbers of MAG staff either tested positive for COVID-19 or were confirmed as close contacts. The COVID-19 situation improved in the second quarter of 2022 with the number of MAG staff infected significantly decreasing. In early April, the Government lifted most of the restrictions imposed to prevent the spread of COVID-19, including the isolation of close contacts. As a result, activities resumed without impact from COVID-19 and MAG was able to return to operating at full capacity and able to catch up to targets.<sup>172</sup>

PTVN also continued to feel some impact of the COVID-19 pandemic in 2022, with staff suffering from COVID-19 reducing human resources, but to a lesser extent than the previous year.<sup>173</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

The GICHD has been supporting VNMAC, NPA, and UNDP in the review of the current legislative and normative framework, with a focus on residual risk management. As a preparatory step, the GICHD and the VNMAC, with the support of UNDP and NPA, have worked on an assessment of the current residual risk management capacity and the required or desired capacities that VNMAC needs to manage residual contamination.<sup>174</sup> The GICHD and VNMAC co-organised a regional workshop on risk management and liability in land release and the management of residual contamination for Southeast Asia, in Hanoi from 22 to 26 May 2023.<sup>175</sup>

169 Prime Minister, "Decision on Approval of the National Mine Action Plan Period 2010–2025", Hanoi, 21 April 2010.

170 Email from Kimberley McCosker, NPA, 8 April 2021.

171 Email from VNMAC, 14 July 2023.

172 Email from Sarah Goring, MAG, 5 April 2023.

173 Email from Phạm Hoàng Hà, PTVN, 3 May 2023.

174 Email from GICHD, 24 April 2022.

175 Email from Sean Moorhouse, NPA, 5 July 2023.