

ARTICLE 5 DEADLINE: 31 DECEMBER 2026
NOT ON TRACK TO MEET DEADLINE

KEY DATA

**ANTI-PERSONNEL (AP)
MINE CONTAMINATION: HEAVY**

OVER
20KM²

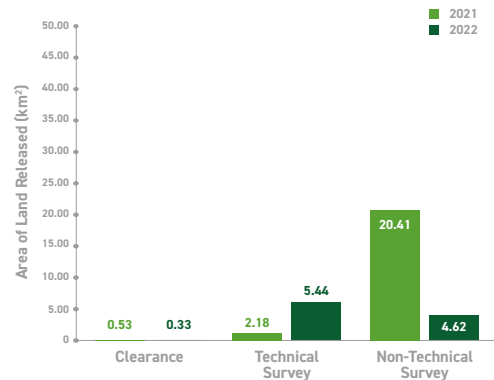
AP MINE
CLEARANCE IN 2022

0.33KM²

AP MINES
DESTROYED IN 2022

11,421

LAND RELEASE OUTPUT



CURRENT LIKELIHOOD OF MEETING 2025 CLEARANCE TARGET (as per the Oslo Action Plan commitment): **LOW**

KEY DEVELOPMENTS

Thailand sought and obtained a further extension to its Article 5 deadline in 2022 until the end of 2026 to complete clearance of anti-personnel (AP) mined areas. It declared Phitsanulok province free of mines in 2022 but released a total of only 10km² through survey and clearance across the country, less than half the previous year's result, underscoring the slowing progress ahead as deminers

deal with more remote tasks in difficult terrain. Thai and Cambodian leaders and mine action authorities met and endorsed cooperation over clearance of mines located in disputed border areas but Thailand said its proposal of 10 sites for clearance received no answer and Cambodian border forces intervened on 10 occasions in 2022 to halt Thai clearance operations.

RECOMMENDATIONS FOR ACTION

- Thailand should actively seek agreement with Cambodia to clear mined areas on their joint border.
- The Thai Mine Action Centre (TMAC) should complete its review of mine action standards and expedite their operational implementation.
- Thailand should develop and disclose plans for the management of residual contamination.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
UNDERSTANDING OF CONTAMINATION (20% of overall score)	8	8	Thailand has successfully slashed its estimate of contamination from 360km ² at the end of 2018 to 40km ² at the end of 2022, allowing it to concentrate on technical survey (TS) and clearance of (mostly) confirmed hazardous areas along the border with Cambodia
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	8	8	Thailand has strong national ownership of its mine action programme which, since it started, has been largely funded from the budget of the armed forces. TMAC's military personnel conduct survey and clearance, supported by, and in good collaboration with, non-governmental organisations (NGOs) on TS and non-technical survey (NTS). Regular meetings are convened between TMAC, relevant ministries, the Humanitarian Mine Action Units (HMAUs), and NGO operators to discuss progress, challenges, and planning.
GENDER AND DIVERSITY (10% of overall score)	5	5	TMAC has no policy on gender and although women make up about 30% of its headquarters staff there were no women in the HMAU demining teams. Only Norwegian People's Aid (NPA) employed women in field operations in 2022. Thailand's baseline survey, completed at the end of 2020 with the exception of some areas on the border with Cambodia, was based on inclusive community interviews in all areas where the survey was conducted. In areas where minority groups reside, they were also consulted.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	8	8	TMAC used the Arc Geographic Information System (GIS) to manage data which allows demining units to submit information online, enabling TMAC to verify data and make corrections. NPA and the Thai Civilian Deminer Association (TDA) deem data in Thailand to be accurate and reliable and the national information management system is accessible to clearance organisations. Thailand submits timely, detailed, and accurate Article 7 reports and has regularly updated States Parties to the Anti-Personnel Mine Ban Convention (APMBC) on its progress.
PLANNING AND TASKING (10% of overall score)	8	8	Thailand's five-year strategic mine action plan ran to the end of October 2023 but the Article 5 deadline extension request submitted in March 2022 sets out detailed, if ambitious, land release targets and priorities until the end of 2026. TMAC's ability to achieve them will depend on reaching agreement with Cambodia on access to disputed areas of their common border.
LAND RELEASE SYSTEM (20% of overall score)	8	8	TMAC is applying an efficient land release methodology. After cancelling a significant amount of the inflated suspected hazardous area (SHA) in its database through NTS it is focusing on TS to identify actual contamination and then on clearance. Since 2020, TMAC has been revising its national mine action standards to bring them up to date and in line with the international standards but plans for completing the review have continued to slip and, as at August 2023, still required further discussion.
LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE (20% of overall score)	8	8	Thailand's land release in 2022 fell well short of the previous year. This was expected as it progressed from rapid cancellation of SHAs under Phase 1 of its five-year strategic plan to TS and clearance under Phase 2. However, the 10km ² released was also only 60% of the target for the year. This appears to be mainly because of interventions by Cambodia to stop clearance of tasks in areas of the Thai-Cambodia border that have yet to be demarcated. Although Thailand is keen to reach agreement that allow clearance to proceed, the interventions highlight one of the main risks to meeting the clearance targets set out in the Article 5 extension request.
Average Score	7.7	7.7	Overall Programme Performance: GOOD

DEMINEING CAPACITY

MANAGEMENT CAPACITY

- National Committee for Humanitarian Mine Action (NMAC)
- Thailand Mine Action Centre (TMAC)

NATIONAL OPERATORS

- Humanitarian Mine Action Units (HMAU 1-4) and HMAU TMAC
- Thai Civilian Deminer Association (TDA)

INTERNATIONAL OPERATORS

- Norwegian People's Aid (NPA)

OTHER ACTORS

- Golden West Humanitarian Foundation (Golden West)

UNDERSTANDING OF AP MINE CONTAMINATION

Thailand recorded another sharp reduction in its estimate of mined area, which stood at just under 30km² at the end of 2022, down 26% from 40km² a year earlier (see Table 1)¹ and 63km² at the end of 2020. Thailand declared one province, Phitsanulok, mine free in 2022 leaving contamination that affects 17 districts in 6 provinces.²

Table 1: AP mined area by province (at end 2022)³

Region	Province	CHAs	Area (m ²)	SHAs	Area (m ²)	Total CHAs/SHAs	Total area (m ²)
North-east	Ubon Ratchathani	20	4,577,815	1	331,104	21	4,908,919
	Si Sa Ket	51	4,090,448	4	2,297,434	55	6,387,882
	Surin	18	3,362,349	5	1,072,000	23	4,434,349
	Buri Ram	1	267,275	4	0	5	267,275
	Sa Kaeo	0	343,382	10	5,534,862	10	5,878,244
East	Trat	20	5,102,398	7	2,719,448	27	7,821,846
Totals		110	17,743,667	31	11,954,848	141	29,698,515

The contamination remaining at the end of 2022 underscored the success of the strategy Thailand pursued in its 2018–23 Humanitarian Mine Action Plan. The first phase in 2018–20 focused on cancelling suspected hazardous areas (SHAs) through non-technical survey (NTS), allowing TMAC to focus the second phase of the plan (2021–23) on technical survey (TS) and clearance of better defined hazardous areas. Phitsanulok province was declared mine free in 2022 largely as a result of cancellation by NTS and without entailing any clearance.⁴

In the past four years, Thailand has cancelled 280km² and SHAs represented 40% of remaining contamination at the

end of 2022 compared with 63% two years earlier. As further evidence of progress, TMAC is finding progressively less previously unrecorded hazardous areas. In 2022, it added only 63,998m² to the database compared with 187,573m² in 2021 and 1.8km² two years earlier.⁵

The challenge for Thailand is that almost 20.5km² (69%) of the remaining contamination is located in areas for demarcation on the border where access requires agreement between the governments of Thailand and Cambodia. The contamination also lies in challenging terrain where access is more difficult and clearance is complicated by dense vegetation.⁶

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Thailand created the National Committee for Humanitarian Mine Action (NMAC) in 2000, chaired by the prime minister and with responsibility for overseeing the national mine action programme. The NMAC was reconstituted in May 2017, again with the prime minister as chairman, but had not been convened since 2017.⁷ The engagement of national leadership in the Committee was seen as important in facilitating policy direction and progress on issues affecting national security, notably regarding cooperation with neighbouring countries on clearing border areas.⁸ NMAC is tasked with developing policy guidance and mobilising resources from all sectors to

support mine action to be able to complete clearance in the allotted timeframe.⁹ In reality, however, the Committee has no operational or strategic power and is purely procedural.¹⁰

TMAC was established in 1999 under the Royal Thai Armed Forces Headquarters to coordinate, monitor, and conduct mine/ERW survey and clearance, risk education, and victim assistance coordination throughout Thailand.¹¹ TMAC's roles and responsibilities within the sector are clear and coherent but it has had to contend with limited funding and, as a military organisation, with regular rotation of personnel at all levels.¹² A new Director General of TMAC, General Supathat

1 Article 7 Report (covering 2022), Form 4, Table 4-2.

2 Email from Flt. Lt. Chotiboon Anukulvanich, Interpreter (on behalf of the Director General), TMAC, 11 July 2023.

3 Article 7 Report (covering 2022), Form 4, Table 4-2.

4 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

5 Ibid.

6 Ibid.

7 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 18 August 2021.

8 Interview with Lt.-Gen. Prasopchai Kongburan, Director General, TMAC, in Geneva, 8 June 2017.

9 Five-Year Humanitarian Mine Action Plan, 1 November 2018–31 October 2023, p. 49.

10 Interview with Shushira Chonhenchob, NPA, Bangkok, 9 April 2019.

11 2017 Article 5 deadline Extension Request, p. 1.

12 Interview with Col. Terdsak Trirattanagool, Assistant Director General, TMAC, Bangkok, 15 May 2017.

Narindrabhakdi, took office in 2022, the 13th director in the 24 years since TMAC was established but reportedly the most highly ranked general to be assigned the position.

TMAC has faced some challenges with the command structure of the Humanitarian Mine Action Units (HMAUs). With the exception of one of the HMAUs—“HMAU-TMAC”—personnel come from the Division-Level Force of the Royal Thai Army and the Royal Thai Navy, which means they must report both to TMAC and to their respective divisional command.¹³ TMAC has worked to inform the HMAUs, high-ranking generals, and the Chief of Defence Forces about the importance of mine action.¹⁴

TMAC aims to have a 60:40 ratio of old personnel to new for the purposes of continuity and to retain knowledge.¹⁵ Training courses delivered by US Marine Corps Forces Pacific (MARFORPAC) under the United States (US) Department of Defense’s Humanitarian Mine Action Program have evolved to meet TMAC’s operational requirements and currently include EOD [explosive ordnance disposal] Levels 1 to 3, TS, and mentorship to operational personnel provided by the US company, Golden West.¹⁶ At the request of TMAC’s Director General, MARFORPAC developed a course for HMAU team leaders in 2022 delivering it for the first time in January

2023. Other support from MARFORPAC in 2022 included the procurement of two mechanical remote-controlled vegetation cutters developed by the US Department of Defense Humanitarian Demining Research and Development (HDR&D) program.¹⁷ HDR&D also provide a Mini MineWolf remote-controlled tiller/flail currently being used by NPA. HDR&D has trained TMAC’s HMAUs and NPA in its use.¹⁸

The cost of Thailand’s mine action programme (including TMAC personnel, equipment, HMAU operations, meetings, workshops, and training) is largely covered by the Thai government through the Royal Thai Armed Forces Headquarters.¹⁹ In 2022, the government allocated TMAC more than THB253 million (approximately US\$7.37 million), a slight reduction on the previous year’s budget (approximately \$7.73 million).²⁰ The 2022 budget also included an additional sum of THB2.1 million (approximately US\$61,000), which included close to \$50,000 to cover the costs of the Rueng Phueng Demining Operation, a special operation carried out in early 2022 in difficult terrain and requiring deminers to be airlifted to the task site.²¹ Thailand would welcome other international assistance for equipment as well as additional survey teams.²²

ENVIRONMENTAL POLICIES AND ACTION

Thailand does not have a national mine action standard (NMAS) on the environment and does not plan to introduce a chapter on environmental management in the revised national standards under preparation and tentatively due for final approval before the end of 2023.²³

An annual Norwegian People’s Aid (NPA)-TMAC-HMAU meeting in December 2021 included sessions dedicated to environmental issues and had a workshop on the subject of working on Environmental Assessment and Management (EMA) and environment training. Environment is not taken into consideration in planning and tasking unless tasks are in protected areas, in which case there are specific rules to be followed in terms of what can be cut and what can not.

NPA introduced an environmental policy and management system in its Thailand operation in 2022 and organised a workshop for staff in South East Asia to exchange knowledge and experience of addressing environmental issues.²⁴ This includes logging ongoing environmental concerns and a range of general measures for staff to reduce air pollution. It bans use of single-use plastic and other disposable items and calls for reduced air travel and driving, combined staff trips, car-pooling, and reduced fuel consumption, and for office waste to be stored in a location that is secure, weatherproof, and leak-proof.²⁵ The Thai Civilian Deminer Association (TDA) includes environmental protection in its operating practices, minimising damage to trees, plants, and wildlife.²⁶

GENDER AND DIVERSITY

TMAC does not have a policy or guidelines on gender and diversity. It attempts to diversify gender where applicable but

13 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 15 August 2019.

14 Interviews with Shushira Chonhenchob, NPA; and with Lt.-Gen. Sittipol Nimnuan, TMAC, in Bangkok, 9 April 2019.

15 Email from Ft. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 15 August 2019.

16 Emails from John Kelsch, Thailand Country Director/Technical Advisor, Golden West, 1 June 2020 and 15 September 2022.

17 Email from John Kelsch, Golden West, 8 May 2023.

18 Email from Aksel Steen-Nilsen, NPA, 31 August 2023.

19 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 27 February 2020.

20 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 27 May 2022.

21 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023; and Article 7 Report (covering 2022), Form 4.

22 Article 7 Report (covering 2020), Form 8.

23 Emails from Ft. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023; and John Kelsch, Golden West, 8 May 2023.

24 Emails from Aksel Steen-Nilsen, NPA, 25 April 2022 and 16 May 2023.

25 Email from Aksel Steen-Nilsen, NPA, 16 May 2023.

26 Email from Amornchai Sirisai, Director, TDA, 19 April 2022.

faces challenges as a male-dominated military organisation. In 2022, TMAC reported women made up approximately 30% of its headquarters staff,²⁷ down from 40% in the preceding two years.²⁸ Women held three of TMAC's twelve headquarters managerial/supervisory level positions, with three female colonels serving as, respectively, chief of the director general's office, chief of Administration and Support, and chief of Public Relations.²⁹ In 2021, three of the nine TMAC staff in managerial positions were women, including a Rear Admiral serving as an advisor.³⁰ However, there continued to be no women working within the HMAUs, as personnel are allocated from local forces/garrisons, which are considered a combat force. The Thai military does not allow women combatants in such units.³¹

Thailand's 2018–20 baseline survey of mine contamination was based on inclusive community interviews consulting women, girls, boys and men in all areas where the survey was conducted and minority groups in the areas where they reside.³²

NPA follows an organisational gender and diversity policy. Its survey teams are gender balanced and during NTS or community liaison activities they invite participation by all local people, including children. Of NPA's 22 employees in Thailand, nine (41%) are women, with women holding four of the six managerial and supervisory positions; and four of fourteen operations positions. NPA encourages TMAC and the HMAUs to become more gender balanced.³³

INFORMATION MANAGEMENT AND REPORTING

TMAC established a data centre to process land release, risk education, and quality management data which became fully operational in 2019 using Excel and Arc Geographic Information System (GIS) mapping.³⁴ ArcGIS Online is being used as part of a support package provided by the Department of Survey of the Royal Thai Armed Forces. ArcGIS assists TMAC and the HMAUs in data collection and dissemination, and mapping of SHAs and confirmed hazardous areas (CHAs) and supports TMAC senior management in decision-making and operational planning.³⁵ HMAUs submit information to TMAC via the online system every 15 days, which allows for verification of progress and rectification of errors.³⁶

PLANNING AND TASKING

The first phase of Thailand's 2018–23 Five-Year Plan focused on NTS and cancellation of outstanding SHAs, mostly in the north-east of the country. In this phase, four provinces were declared mine free: Chanthaburi, Chiang Mai, Chumphon, and Mae Hong Son.³⁷ In the second phase, covering 2021–23, focus switched to TS and clearance with TMAC expecting to release a total of more than 90km² of SHA/CHA.³⁸

In March 2022, Thailand submitted a request to extend its Article 5 deadline from the end of October 2023 to the end of 2026, setting ambitious annual land release targets for the extension period. It proposed to complete release of all CHAs and SHAs except the areas earmarked for demarcation within before the new extension period kicked in. This included releasing 17.39km² through TS and clearance in 2022 and a further 8.6km² between 1 January and 31 October 2023. It hoped to tackle the remaining 14.31km² of areas for demarcation in the course of the requested 38-month extension. Annual targets included almost 5.33km² of the most accessible areas in the first year, just under 5.15km² in the second, and more than 3.56km² of the more "complicated" areas in the remaining 14 months.³⁹

Thailand's extension request assumes it will be able to reach an accommodation with Cambodia on clearance of areas for demarcation that has so far proved elusive. TMAC and the Cambodian Mine Action Centre (CMAC) conducted a pilot project on the border in March–April 2020. Thailand reported that in August 2021 it submitted a proposal for a new project to which CMAC had responded favourably, and that it had subsequently proposed 10 areas for operations but Cambodia has not yet agreed.⁴⁰ As a result, TMAC's priority for 2023 was to release more than 9.23km², representing all the remaining hazardous areas in undisputed territory so that after 2023 it could concentrate on the areas for demarcation.⁴¹

27 Emails from Flt. Lt. Chotiboon Anukulvanich, TMAC, 1 July 2021 and 27 May 2022.

28 Email from Shushira Chonhenchob, NPA (on behalf of the TMAC Director General), 8 April 2019.

29 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

30 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 27 May 2022.

31 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 18 August 2021.

32 Emails from Flt. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 27 February 2020; and Aksel Steen-Nilsen, NPA, 30 March 2020.

33 Emails from Aksel Steen-Nilsen, NPA, 31 March and 4 July 2021 and 16 May 2023.

34 Emails from Shushira Chonhenchob, NPA (on behalf of Lt.-Gen. Sittipol Nimnuan, TMAC), 8 April 2019; and Flt. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 27 February 2020.

35 Email from Shushira Chonhenchob, NPA (on behalf of Lt.-Gen. Sittipol Nimnuan, TMAC), 8 April 2019.

36 Ibid.; and email from Flt. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 27 February 2020.

37 Statement of Thailand, APMBC Eighteenth Meeting of States Parties, virtual meeting, 16–20 November 2020; and Article 7 Report (covering 2020), Form 4.

38 Five-Year Humanitarian Mine Action Plan, 1 November 2018–31 October 2023, p. 13.

39 2022 Article 5 deadline Extension Request, p. 43.

40 Ibid., p. 9.

41 Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

TMAC drafted its first NMAS with NPA's support in 2010, formally adopting the 32 chapters in June 2012, the year Thailand initiated a land release process.⁴² Since then, the NMAS underwent modest revisions in 2015 and 2018 in support of Thailand's shift towards using the full toolbox of land release methodologies rather than solely relying on TS and full clearance.⁴³ The main change in 2018 was the release of a new standard on the "Cancellation of SHAs by Evidence Based Survey", which has made it easier to cancel previously inflated, largely uncontaminated SHAs.⁴⁴

In 2020, TMAC, with the assistance of Golden West, began to revise both the NMAS and standard operating procedures

(SOPs) in accordance with the International Mine Action Standards (IMAS). In accordance with the Director General's wishes, the revision was intended to replace 32 NMAS chapters with more concise standards in 12 chapters and to transfer operational requirements to national SOPs.⁴⁵

SOP revisions were adopted in 2022 with the intention to review and revise them biannually but final preparation of the NMAS have encountered delays and taken longer than expected. After a number of postponements, a review of the revised standards starting in May was planned to conclude in the last quarter of 2023.⁴⁶

OPERATORS AND OPERATIONAL TOOLS

All clearance in Thailand is conducted by the military due to national regulations on who can handle explosives and operate demining equipment. There are five HMAUs, supervised by TMAC with personnel from the Royal Thai Army and Royal Thai Navy, which carry out survey and clearance operations. In addition, there is one national operator, TDA, and an international operator, NPA, which carry out survey in support of the HMAUs.⁴⁷

TMAC reconfigured the composition and roles of the HMAUs in 2022 in response to its changing operational focus. HMAUs 1 and 4 have been taken off land release and assigned to focus on risk education and victim assistance. All personnel are trained for survey and clearance and the members of these units can provide additional clearance capacity if required. HMAUs 2 and 3 and HTMAC are to conduct land release and restructured with four NTS/TS teams of five or six personnel, four TS/clearance teams each with ten personnel, four mine detection dog (MDD) teams with one dog and one handler per team, two risk education teams (six people each) and five EOD personnel.⁴⁸

NPA has supported TMAC operations since 2011, conducting land release through NTS and TS. In 2021, NPA had operated with three NTS teams (totalling six personnel) and three

TS teams (totalling nine personnel), working jointly with personnel attached from HMAUs 2 and 3.⁴⁹ The personnel attached from HMAUs are trained to EOD Level 3 and so able to dispose of any mines encountered during survey on the spot.⁵⁰ In 2022, all teams focused on TS/clearance teams to align with the changing focus in the second phase of TMAC's 2018–23 plan. NPA started 2022 with 10 operations staff working in a single team but from June 2022 split them into two, five-person teams working in Surin province's Phanom Dongrak and Kabchoeng districts. From June 2022, NPA also had two MDDs deployed mainly for TS but able to conduct clearance if needed. NPA provides technical advice as requested by TMAC and co-organised training on the Mini MineWolf with the HDR&D.⁵¹

TDA has supported TMAC operations since 2014 and at the beginning of 2021 had two 10 person teams available for NTS, TS, clearance and EOD spot tasks but their operations ended in February 2021 when donor support expired. TDA's teams remained on stand-by in 2022 but were hopeful of attracting new donor funding that would allow them to resume work in 2023.⁵²

42 Thai National Mine Action Standards, 1 April 2015.

43 Email from Shushira Chonhenchob, NPA (on behalf of Lt.-Gen. Sittipol Nimnuan, TMAC), 8 April 2019.

44 Emails from Aksel Steen-Nilsen, NPA, 28 March 2019; and Ft. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 15 August 2019.

45 Emails from John Kelsch, Golden West, 17 August and 15 September 2022.

46 Emails from John Kelsch, Golden West, 17 August and 15 September 2022 and 8 May 2023.

47 Five-Year Mine Action Plan, p. 11; and email from Ft. Lt. Chotiboon Anukulvanich (on behalf of Lt.-Gen. Sittipol Nimnuan), TMAC, 27 February 2020.

48 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

49 Email from Aksel Steen-Nilsen, NPA, 25 April 2022.

50 Interview with Aksel Steen Nilsen, NPA, Bangkok, 13 December 2022.

51 Email from Aksel Steen-Nilsen, NPA, 16 May 2023.

52 Emails from Amornchai Sirisai, TDA, 19 April 2022 and 12 May 2023.

LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

LAND RELEASE OUTPUTS IN 2022

Thailand released a total of 10.39km² in 2022, less than half the area released in 2021 largely because of a sharp downturn in the area cancelled through NTS.⁵³ The drop was expected as TMAC embarked on the second phase of its 2018–23 plan in which operations shifted from NTS to focus on TS and clearance but also underscored the slower progress ahead as deminers take on minefields with denser contamination in remote and difficult terrain.

SURVEY IN 2022

Total area released through survey in 2022 amounted to 10.06km² (see Table 2) compared with 22.59km² in 2021. After rapid NTS and high rates of cancellation in the past four years Thailand is left with the task of clearing predominantly CHAs. In 2022, the second year of TMAC's 2018–23 plan, it cancelled 4.62km² compared with 20.4km² the previous year. Close to 90% of the area cancelled was in Phitsanulok province, where TMAC cancelled 8.5km² in 2021 and another 4.1km² in 2022 and which, after small amounts of TS/clearance, authorities declared mine free in 2022.⁵⁴

TS operations in 2022 reduced 5.44km², more than double the area reduced in 2021. TMAC had cancelled 8.5km² in Trat province in 2021 and reduced only 0.6km². In 2022, the position reversed as TMAC released 2.8km² through TS and cancelled 0.4km².⁵⁵ NPA reported it reduced 324,665m² through TS on three sites in Surin province.⁵⁶

Table 2: Land release of mined area through NTS and TS in 2022⁵⁷

Operator	Province	NTS (m ²)	TS (m ²)
TMAC	Trat	427,079	2,833,621
	Ubon Ratchathani	81,289	1,550,606
	Phitsanulok	4,105,887	95,568
	Surin	2,700	740,366
	Buriram	0	65,431
NPA	Surin	0	158,490
Totals		4,616,955	5,444,082

CLEARANCE IN 2022

TMAC cleared 0.33km² in four provinces in 2022 (see Table 3). Despite the focus on clearance in its operations this represented a 37% drop from the area cleared in 2021 and only 60% of the year's target. The number of mines cleared also fell: to 11,421 compared with 19,002 the previous year.⁵⁸

Thailand attributed the shortfall partly to the challenges experienced in a one-month special operation, the Rueng Phueng Demining Operation, carried out in January-February 2022 which aimed to clear nine CHAs covering 708,532m². The remote and difficult terrain of the task site required deminers to be lifted in by air force helicopters. The operation released 452,515m², including reduction through TS of 401,786m² (89%) and clearance of 50,729m² (11%) and removed 1,064 AP mines. But Thailand reported it was prevented from completing the task by an intervention from Cambodian border units which requested them to halt the operation, leaving 256,017m² still to be cleared.⁵⁹

53 Article 7 Report (covering 2022), Form 4; email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

54 Ibid.

55 Ibid.

56 Email from Aksel Steen-Nilsen, NPA, 16 May 2023.

57 Article 7 Report (covering 2022), Form 4; email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

58 Ibid.

59 Article 7 Report (covering 2022), Form 4.

Table 3: Mine clearance in 2022⁶⁰

Province	Area cleared (m ²)	AP mines destroyed*	ERW destroyed*
Phitsanulok	0	1	11
Buri Ram	16,258	2,155	0
Surin	156,365	2,230	636
Trat	10,097	434	255
Ubon Ratchathani	148,146	6,601	585
Totals	330,866	11,421	1,487

* Includes items destroyed during TS and in spot tasks

ARTICLE 5 DEADLINE AND COMPLIANCE



Under Article 5 of the APMB (and in accordance with the third extension granted by States Parties in 2022), Thailand is required to destroy all AP mines in mined areas under its jurisdiction or control as soon as possible, but not later than 31 December 2026.

Thailand set ambitious targets of clearing 14.3km² in its 38-month extended deadline beginning on 1 November 2023 but that target has already been overtaken by events. The 10km² that TMAC released in 2022 represented 60% of the amount of land it had planned to release in the year. The result added 7km² to the contamination Thailand had planned to tackle between 2023 and the end of 2026 and, depending on the results in 2023, could mean a 50% increase in the area to be tackled in the Article 5 extension period.

Thailand is seeking to push ahead with tackling contamination in border areas, including areas for demarcation. NPA reported in 2023 it had been assigned three TS tasks in areas for demarcation on the borders of Surin and Si Sa Ket province.⁶¹ Thailand's experience with the Rueng Phueng Demining Operation in 2022 exemplified the challenges it

faces meeting the new deadline. Much of the remaining border contamination is in hard-to-access locations where deminers contend with difficult terrain and dense forest. The main immediate obstacle to progress, however, is reaching agreement with Cambodia on clearance. Thailand reported that by March 2022 Cambodian interventions had halted operations in 34 locations covering mined area totalling 14.3km².⁶² In 2022 alone, TMAC reports Cambodia intervened to stop TMAC operations on six occasions in Surin, Si Saket, and Ubon Ratchathani provinces, and in the first five months of 2023 it intervened on three occasions in Si Sa Ket province.⁶³

TMAC and CMAC first agreed to conduct a pilot project for border mine clearance in September 2018.⁶⁴ Since then, they have carried out one project in March–April 2020 that resulted in release of 95,000m² by Thailand and destruction of two items of UXO but no mines. Further progress was not possible during the COVID-19 pandemic but tricky relations between the two governments remain the key impediment to progress.

60 Ibid., and email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

61 Email from Aksel Steen-Nilsen, NPA, 16 May 2023.

62 2022 Article 5 deadline Extension request, p. 36.

63 Email from Ft. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

64 Article 7 Report (covering 2018), Section 8.

After a meeting of the two nations' prime ministers on 10 November 2022, Cambodian Prime Minister Hun Sen declared he had agreed that mine clearance should take precedence over border demarcation.⁶⁵ A meeting of the two deputy prime ministers in a Thai-Cambodia General Border Committee (GBC) in Bangkok later in November 2022 reaffirmed support for cooperation in border demining. The directors general of TMAC and CMAC also met in 2022 and 2023 to discuss cooperation in border clearance and identify potential sites for joint operations.⁶⁶ TMAC has proposed 10 areas on the border for clearance but as of June 2023 had received no response from Cambodia.⁶⁷

Table 4: Five-year summary of AP mine clearance

Year	Area cleared (m ²)
2022	330,866
2021	525,847
2020	917,924
2019	95,278
2018	528,902
Total	2,398,817

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Revised Thai Mine Action Standards under preparation by TMAC with support from Golden West standards, officially renamed as Thai Mine Action Standards (TMAS), are due to add a chapter on residual risk management but a draft standard has not yet been prepared as TMAC is still considering the issue. TMAC began a pilot programme with HMAU 4 in 2023 focused on residual risk, victim advocacy, and risk education.⁶⁸

TMAC's mandate covers only formal SHAs and CHAs. Any explosive ordnance (including landmines) found outside an SHA/CHA comes under the responsibility of the police. Once Thailand fulfils its Article 5 obligations, TMAC will act as the information and knowledge centre for mines and unexploded ordnance. If previously unknown mines (i.e. residual contamination) are discovered after completion, the local risk education network will inform the local authorities, community leaders, and relevant government agencies. If the area in question is under the jurisdiction of the military, combat engineers will address the contamination. If located in other areas, police EOD teams will take the lead.⁶⁹

⁶⁵ "Cambodia, Thailand agree to clear all mines in border areas", *Phnom Penh Post*, 23 November 2022.

⁶⁶ Article 7 Report (covering 2022), Form 8.

⁶⁷ Email from Flt. Lt. Chotiboon Anukulvanich, TMAC, 11 July 2023.

⁶⁸ Email from John Kelsch, Golden West, 8 May 2023.

⁶⁹ Email from Flt. Lt. Chotiboon Anukulvanich (on behalf of the Director General), TMAC, 27 February 2020.