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Peaceful Minefields: Environmental Protection or Security Risks?

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Abstract

Clearing dangerous military waste saves lives, but the clearing process damages the environment and leaves minority communities vulnerable to land grabbing processes in the Mekong Subregion. How do we strike a balance between clearing military waste and protecting local environments and small subsistence farmers? And what is the impact of the United States and China on these processes? This paper explores the history of U.S. bombing, contemporary clearance operations, and land grabbing "epidemics" as entangled issues in Southeast Asian minefields. Clearance operations provide the U.S. opportunities to engage more strongly with civil societies and marginalized communities, increasing soft power and influence in the Subregion. In terms of on the ground perceptions and in very practical ways, though, Chinese and other foreign development projects have taken the lead on these clearance operations, often in ways that exacerbate land acquisitions from the region's most vulnerable populations. If the United States increased bomb clearance with reinforced regulations to ensure land release back to original inhabitants, it would mitigate the risks for land grabbing after military waste decontamination, mitigate ecological damages, and work to repair its relations with Subregion countries by accounting for the U.S. legacy of explosive remnants of war.

Implications and Key Takeaways:

- USAID should initiate a center that addresses issues of security and environment together that will monitor landmine clearance and its ecological effects.

- The Bureau for Environment and Security should also implement land rights workshops for vulnerable communities who live in contaminated areas in Southeast Asia.

- USAID should participate in The Working Groups established by ARMAC and contribute to the Working Group's funding, which at the moment is funded by China.

- More independent research should investigate the connections between landmine clearance and land grabbing. Climate migration should be part of the priorities in US-funded research calls.

- The Geneva Institute for Humanitarian Demining should be utilized to ensure land release after mine clearance through the institution of landmine clearance observation teams on the ground.

- The USAID should add land release stipulations to their funding streams to GICHD and other landmine operations.

- Through international bodies like the GICHD, competitive funding for minefield clearance should be increased through programs that incentivize land release.

- The United States should return to the Obama-era policy that aligns U.S. policy with the Mine Ban Treaty outside of the Korean peninsula.

Introduction

On my first tour of a Cambodian minefield in 2010, the demining supervisor of the platoon of deminers brought me through a tapioca field where heavily armored men and women stood in lines. I was not allowed beyond the bright red signs with skulls and crossbones. Wearing bulletproof helmets, masks, and aprons, they slowly and tediously walked through the field, using a metal detector to sweep the ground in front of them, the sun reflecting off the long plastic visor. To avoid the heat of the Cambodian sun, they began their work early in the morning. In the golden hour of sunrise as dawn gilded the fields, the sounds of a distant Buddhist temple surrounded us with chanting. I commented on how beautiful it was.

"Minefields are always beautiful," the supervisor said. "When you want to find a landmine, you look especially careful under trees or by rivers. That's because an enemy will rest there. When an enemy is off their guard, they will sit and relax or try to get a drink of water. Then, the landmine will explode while they are resting."

It's no surprise that minefields and other military waste can prevent development and economic prosperity, but perhaps counterintuitively, their presence can also provide ecological protections and may even protect ethnic minorities and rural residents. Clearing dangerous military waste saves lives, but the clearing process[1] sometimes damages the environment and leaves minority communities vulnerable to land grabbing[2] processes. How do we strike a balance between clearing military waste and protecting local environments and small subsistence farmers? Moreover, what are the impacts of the United States' policies on these processes and how can we understand the challenges and opportunities presented by them? Indeed, clearance operations provide the United States opportunities to engage more strongly with civil societies and marginalized communities, increasing soft power and influence in the Subregion. In terms of on the ground perceptions and in very practical ways though, Chinese and other foreign development projects have taken the lead on these clearance operations, often in ways that exacerbate land acquisitions from the region's most vulnerable populations. If the United States increased bomb clearance with reinforced regulations to ensure land release back to original inhabitants, it would mitigate the risks for land grabbing after military waste decontamination, mitigate ecological damages, and work to repair

its relations with Subregion countries by accounting for the U.S. legacy of explosive remnants of war.

Landmines and Clearance Operations

Explosive remnants of war (ERWs) such as landmines and other unexploded ordnances present an almost never-ending problem to development in the Greater Mekong Subregion, namely in Cambodia, Laos, and Myanmar, and to a lesser extent Vietnam and Thailand.[3] Landmine detection industries in partnership with local governments have stepped up, spending hundreds of millions of dollars amount to clear hundreds of acres of land in Cambodia, Lao PDR, Thailand, Vietnam, and Myanmar. These smaller nation states rely heavily on larger powers to fund this. For example, China gave $2.5 million dollars directly to the Cambodian government's military demining organization in 2021.[4]

Both the United States and China have an interest in funding the clearance of military waste. For the United States, bilateral relations with Subregion countries will improve through their support of mine clearance operations, especially in countries that have tenuous bilateral relations with the United States such as Cambodia and Laos PDR.[5] China's support for clearance in these countries, especially in Cambodia, though, has a greater on the ground presence than the United States. For instance, in 2019, ASEAN representatives, led by Cambodia, pushed for a fully operational ASEAN Regional Mine Action Center (ARMAC), which was founded in 2016. In December 2021, China funded a technical working group meeting for the project "Enhancing Regional Cooperation and Resource Mobilization Capacity in Mine/ERW in ASEAN." As the working group moves forward, the United States has left much of the major leg work for such mine action operations to Japan rather than stepping in as a public presence. The working group itself as well is an opportunity to offer support to these operations and promote U.S. support of ERW clearance throughout the region. This is bound to become more important with Cambodia as Chair of ASEAN in 2022.

In the past 25 years, the United States has invested over $400 million dollars to through the Department of Defense (DOD), Department of State (DOS), and United States Agency for International Development (USAID),

as well as funding for treatment of victims through USAID and the Leahy War Victims fund.[6] However, the funding for such clearance, as for all the Subregion, is on tenuous lines from international donors.[7] Moreover, the U.S.-funded presence is less publicly known on the ground in these countries since the major mine clearance operations are handled by the government operations with the support of NGOs and almost none of these NGOs are U.S.-founded. HaloTrust is the exception to this rule and yet, this NGO itself, like all mine action NGOs in the region, is characterized by a sense of competition with other NGOs that presents a barrier to cultivating relations on the ground and with government agencies involved in the same activities.[8] On the ground this is evident by the signs that mark former minefields where the flags of donor countries that fund the NGOs are depicted; one rarely sees the U.S. flag in countries the United States has tenuous relations with, such as in Cambodia or Laos, whereas the U.S. flag is found more prominently on signs in Vietnam and Thailand. This public facing presence makes a difference in peoples' daily perceptions of how much foreign powers are doing for them, aside from the invisible support of financial aid. In contrast, China's reputation for these activities are more widely known. In addition to funding the working group for ARMAC, from my observations in the minefields, most people are quite aware of the BRI development initiatives that take place in Southeast Asia and the amounts that the Chinese state gives to Southeast Asian governments, especially close allies like Cambodia and Laos PDR.

In 1997, the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, known as the Ottawa Treaty, the Anti-Personnel Mine Ban Convention, or simply the Mine Ban Treaty, was ratified by the United Nations in order to ban the use of anti-personnel landmines because their effects last long after war has ended. 164 states have acceded to the treaty but the major producers of landmines including the United States, China, and Russia have not signed onto the treaty[9].

A large majority of funding for landmine clearance comes from international donor countries, although this means that humanitarian demining organizations depend on money that is whim to politics in donor states.[10] Despite the fact that the United States and China are non-signatories to the Mine Ban Treaty, both countries provide considerable financial support to development and landmine clearance,[11] and the Chinese government has

made statements in support of mine action and insists it does not use landmines or ERWs.[12] The U.S. Conventional Weapons Destruction (CWD) Program has invested over $665 million dollars in explosive clearance in Southeast Asian since 1993.[13]

As such, the United States is one of the top investors in clearing military waste in the Greater Mekong Subregion. Recent studies have pointed out that landmine detection exacerbates the land grabbing epidemic in the Subregion,[14] implicating these funds in the issues associated with land grabbing. This paper explores the unintended consequences of landmine clearance in Southeast Asia, how landmine detection in its processes leads to land grabbing and suggests policies can be revised to mitigate the risk for land grabbing after landmine clearance, which can protect ethnic minorities, diminish risk of climate migration, and protect conservation lands in the Greater Mekong Subregion.

A Contaminated Subregion

The Greater Mekong Subregion is littered with millions of ERWs and the United States is implicated in this contamination from the Vietnam War's aftermath: 8 million tons of bombs dropped on Vietnam; 2.7 million tons dropped on Cambodia; and 2.1 million tons of bombs dropped on Laos PDR.[15] Most of these ERWs affect the lives of minority populations, Indigenous groups, and small subsistence farmers.[16] Aiding the clearance and detonation of these ERWs remains an important part of U.S. relations with Southeast Asian governments.[17] This aid offers the U.S. government a means to promote good will with these states because many of the ERWs originate from U.S. bomb droppings in the late twentieth century. All the Subregion countries incorporate their national mine action centers as part of their departments of defense, and each require foreign mine detection organizations to work with the national mine action center. This fact itself, due to the unease many countries have when it comes to giving money to foreign departments of defense, often hinders international assistance because international NGOs have less freedom to operate within these countries.

These ERWs are the cause of multiple migratory populations. Landmines often prevent development but in so doing, protect small subsistence farmers from their land being taken. In fact, landmine clearance is linked to increased

vulnerability for land grabbing.[18] Small subsistence farmers are currently under threat from a number of factors including climate change. This means that landmine clearance organizations are often unwitting participants in illegal land acquisitions, though little has been done to study this connection explicitly over time.

Brief descriptions of each of the affected countries are detailed below:

Vietnam

The United States dropped 413,130 tons of cluster munitions on Vietnam between 1965 and 1973.[19] More than 20 percent of the country remains covered in landmines. Vietnam is also contaminated by landmines laid by Cambodia and China during the 1970s. Vietnam is a non-signatory to the Mine Ban Treaty and the Convention on Cluster Munitions, meaning that it still allows the stockpiling, importing, and production of weapons that leave ERWs, but the country participates in convention meetings and claims that it has never deployed mines since the convention's existence. The ERWs have resulted in thousands of casualties in the past decades with dozens occurring annually in mostly the eastern provinces and those that border Cambodia and China.[20]

Lao People's Democratic Republic (PDR)

Lao PDR has the world's worst contamination from unexploded munitions as a result of aerial bombings from 1965–1973, during the U.S. bombing campaign.[21] The entire country is densely contaminated with these cluster munitions. Most accidents occur when villagers attempt to gather scrap metal from the cluster munitions, resulting in thousands of casualties and injuries.[22] Lao PDR is considered one of the least developed countries of the world but has formulated strategic planning to move beyond that status by incorporating ERW clearance into its development plan.[23]

Cambodia

Most landmines in Cambodia were laid in the 1980s during the Vietnamese takeover of the country, which came after the defeat of Pol Pot's Maoist-

communist Khmer Rouge during the Cambodian-Vietnamese War (1979–1989). Other munitions are explosive relics of the Vietnam War (which the Vietnamese call "the American War") when the United States dropped bombs on communist forces. These conflicts are entangled: the U.S. intrusion in Vietnam in the 1960s led to the rise of the Khmer Rouge, a genocidal regime responsible for murdering millions of Cambodians in the 1970s. Although Vietnam and Cambodia were initially aligned, the two communist regimes soon turned against each other, leaving China to mediate. The result was the K5 belt, an invisible wall preventing Khmer Rouge troops from returning to Cambodia via Thailand. The K5 belt is a 1,046km-long K5 mine belt installed by the Vietnamese-backed government and constitutes Cambodia's densest contamination with up to 2,400 mines per linear kilometer, while the east is covered in unexploded ordnances from the Vietnam War. The United States itself dropped 26 million cluster submunitions on Cambodia in eastern and northeastern areas bordering Lao PDR and Vietnam.[24] As a result, Cambodia has the highest rate of amputees in the world.[25] In Cambodia, villagers become refugees when farmland lies fallow due to drought provoked by both exacerbated climate change and require landmine clearance like Chinese investment and development projects.[26]

Myanmar

As a result of decades of civil war, Myanmar is one of the most mine contaminated countries of the world. In 2020, mine action activities including victim assistance and mine clearance decreased from previous years. After a military coup in 2021, new mines have continued to be installed along the borders with Bangladesh, China, India, and Thailand. Many of these landmines are produced in state-owned factories. The military takeover of the countries has resulted in ERWs being installed along its border, landmines are pushing people from arable land. It is clear that landmines will prove a difficult problem for Myanmar's future. At the moment, landmines in Myanmar are pushing occupants from their home villagers to refugee camps in neighboring countries.[27]

Thailand

Most ERW contamination in Thailand comes from border conflicts with Cambodia, Lao PDR, and Myanmar resulting in minefields concentrated along these borders to the eastern and northeastern provinces. Of all the countries in the Subregion, Thailand has the fewest incidents and issues with landmines and other ERWs but for development and trade with these bordering neighbors, mine clearance is essential.[28]

Land Grabbing in the Subregion

In addition to landmines and other ERWs, land grabbing is another problem in the Subregion, especially for small subsistence farmers and ethnic minorities. According to the Food and Agricultural Organization of the United Nations (FAO), land grabbing is the large scale acquisition of land without the local community's consent. It is difficult to quantify the extent of land grabbing,[29] with estimates ranging from globally 68 million hectares of land to 227 million hectares acquired since 2008.[30] In general, land grabs push people off their lands, especially small scale farmers and ethnic minorities, and thus damage the lives of the most marginalized people. Because local governments often benefit from land grabs, the nature of the issue can seem intractable. Domestic laws often create opportunities and justifications for these land acquisitions.[31]

Foreign corporations sometimes incentivize these land grabs, such as Chinese companies seeking to develop the Subregion in the Belt and Road Initiative,[32] Thai state electrical giant The Electricity Generation Authority of Thailand,[33] and European interests,[34] which have displaced thousands of small scale farmers. Advocacy groups and media organizations suggest that Chinese-funded development, especially when it comes to land development projects, such as the building of dams on the Mekong River, has devastating effects from illegal logging on conservation lands, the encroachment on Indigenous people's homes, and the undermining of democratic values.[35]

These land grabs occur on ground that is beneficial to larger development interests. While land grabs have even been rationalized by global groups such as the World Bank in its controversial report (2010) that suggested land grabbing could present agricultural investment opportunities,

the acquisitions often harm the most vulnerable populations[36] and exacerbate ecological harms. This development also often runs through lands that demands landmine or ERW clearance,[37] which makes landmine clearance (often unwittingly) part of land grabbing acquisitions.

Brief descriptions of each of the affected countries are detailed below:

Vietnam

Land grabbing in Vietnam is often exemplified by the state takeover of land that is declared "public" under the socialist governance.[38] Since the early 2000s, officials have seized over one million hectares of land from farmers which exceeds the 810,000 hectares of land redistributed from rich landowners to poor peasants with the collectivization of agricultural land in the period from 1953-1956—under the motto "farms to the cultivators."[39] The country as a whole is relatively less vulnerable than the other Subregion states when it comes to foreign interests and most land acquisitions occur from the state appropriating land from small subsistence farmer and ethnic minorities in order to develop state-led projects. This still leads to the displacement of its most vulnerable populations. Vietnam is also a country that often incentivizes land grabbing in its Subregion neighbors, such as the large-scale acquisitions that it has supported in Cambodia and Lao PDR. Many of the state acquisitions in Vietnam are for land conversion to hydropower deals with China, Hong Kong, and Japan.[40]

Lao PDR

In Lao PDR, the government is socialist and local policy initiatives such as the Lao Land and Forest Allocation Policy (LFAP) allow for allocations of state forests to local communities without formal titles, while the Land Titling Policy (LTP) allocates formalized titles in more urban centers. Both policies have been implicated in justifying land grabbing,[41] and much of the land acquired have been minority-owned swidden farms taken for Chinese-owned rubber plantations.[42] According to a Global Witness report, Vietnam Rubber Group (VRG) has also been one of the main investors in this land, evicting communities across Laos PDR and Cambodia (2018). Even though the state has signed memorandum of understanding with China to open its doors for

economic development,[43] scholars have suggested that land eviction in Lao PDR does not truly benefit the state and note that such land grabs have only increased the state's dependency on other nation-states, thus decreasing its productivity as a whole.[44]

Cambodia

China, as the top investor in Cambodia, has taken over 4.6 million hectares of land, resulting in Chinese company control of about one-fourth of Cambodian's 17 million hectares of agricultural and forested land.[45] Logging of protected land and places where ethnic minority populations live have had increasing encroachment, especially while the coronavirus epidemic has raged.[46] But, European interests have also incited evictions and violent conflicts in Cambodia, such as 61 large-scale land concessions in Cambodia, with a total coverage of 958,000 hectares, and an average size of 8,985 hectares from February to September 2010 to open a sugar factory, displacing villagers in the Omlaing province of the southwest.[47]

Myanmar

Myanmar is currently undergoing a violent and deadly military coup, experiencing the aftereffects of 980,000 Rohingya refugees fleeing its borders since 2017, and undergoing a massive wave of internal displacements—559,000 internally displaced persons from 2019 to February 2021.[48] Paired with Lao PDR as the least developed state in the Subregion, it has also committed to opening its borders for development with the BRI and seeks to increase its status. This has resulted in land concessions to these developers, planning gas pipelines and dams in its northern province.[49] These military led grabs have also entailed offshore "ocean grabbing" in the south where Thai investments funded the military control over the country and displaced small scale fisheries.[50]

Thailand

Thailand is in fact one of the major players who acquires land in the Subregion but also suffers its own land grabbing issues.[51] For example, in the 1990s, the

state appropriated public lands to develop, resulting in protected forests and the threat to evict up to one million families.[52]

Land Release

The first step in landmine and cluster munitions clearance entails the temporary displacement of residents. Schools close, farmers are banned from their crops, and people must leave their homes. Minefields across the Subregion are concentrated on the borders and often force local people to halt their everyday lives. These are usually villagers in the outskirts of these countries and oftentimes are ethnic minorities. This displacement is meant to be temporary, but, even in its temporary displacement, villagers must migrate to alternative homes. In practice, it becomes easier to keep them off the land permanently and to coerce them to sell their lands after clearance concludes.

Indeed, when comparing maps of landmine contamination and maps of Chinese investment in the Subregion, one can see that the investments include minefields. This seems as though it would be beneficial in that it allows important and lifesaving clearance to take place. However, these lands troublingly also usually overlap with protected and Indigenous lands (see an example of two Cambodian maps, one showing the infrastructure plans in China and one from the baseline surveys of landmine contamination below and their overlaps).

Climate Migration and Environmental Concerns

Large scale land acquisitions lead to development and economic benefits for nation states in the Subregion but have devastating effects on poorer people in the country, such as small subsistence farmers, ethnic minorities, and Indigenous communities. They also have larger global effects on the already increasing issues of deforestation, thereby exacerbating carbon emission effects. In the Paris Agreement of Reduced Emissions from Deforestation and Forest Degradation (REDD+), a framework was established to fight climate change that targeted deforestation prevention as a means to reduce emissions, specifically in Southeast Asia. Land grabbing has led to further deforestation, contributing to further emission increases in areas particularly vulnerable to climate change.[53]

FIGURE 1: Baseline survey on mine/ERW (2009–2014). 2015. ERW contamination shows high in areas Chinese infrastructure projects are planned on Indigenous lands. https://data.opendevelopmentcambodia.net/dataset/erw/resource/2b20a617-b791-4b13-addc-ac4c45cc2ffe. Accessed March 4, 2022

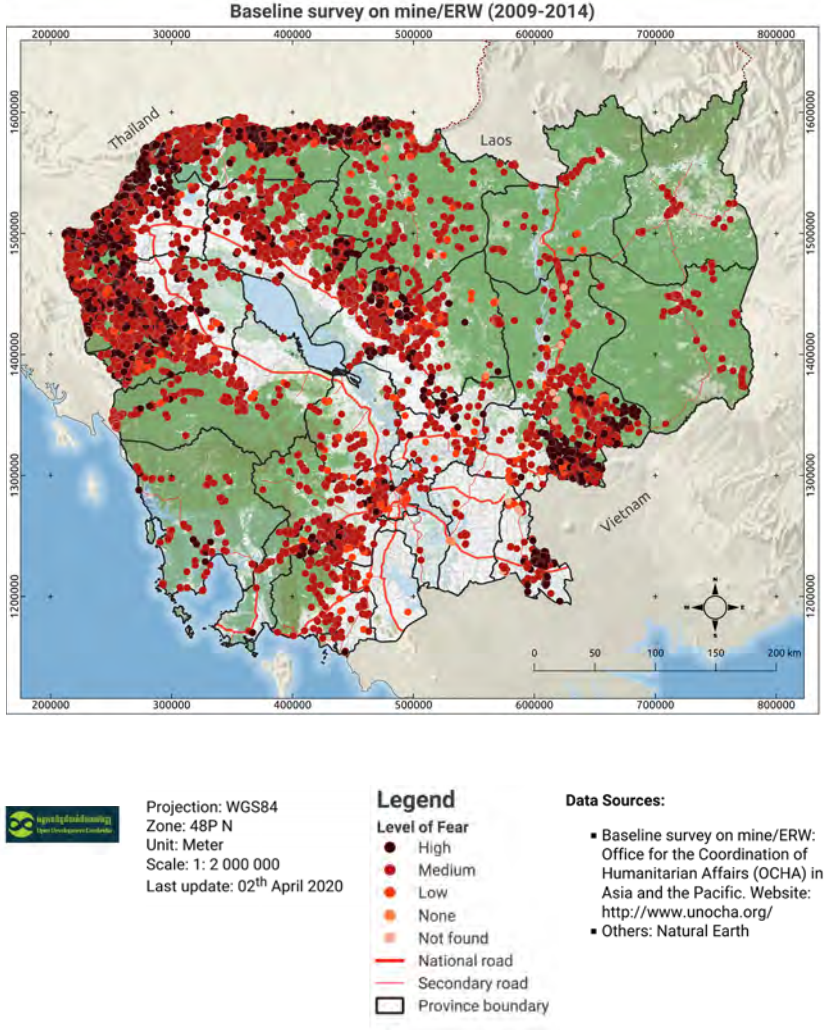
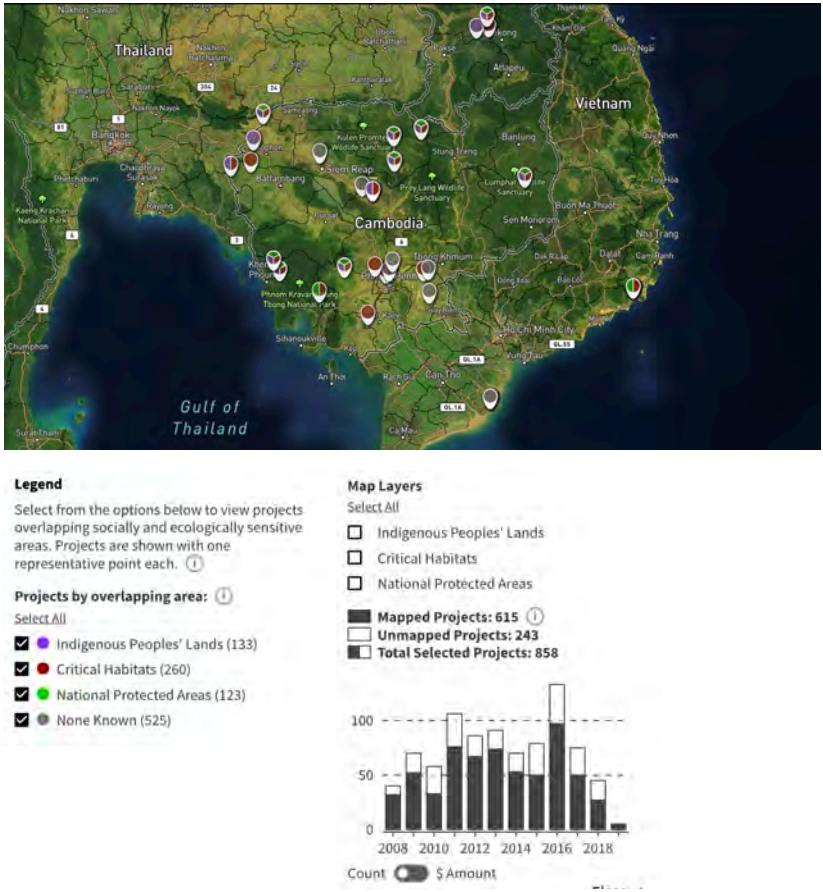


FIGURE 2: Screenshot of data representation of Chinese infrastructure investments in Cambodia by Boston University's Global Development Policy Center on China's Overseas Development Finance, Geospatial Data Analysis of Biodiversity and Indigenous Lands. 2022. https://www.bu.edu/gdp/chinas-overseas-development-finance/. Accessed March 4 2022.



Most families who farm on minefields have already been pushed out of arable uncontaminated lands. They have often been pushed from those lands partially as a result of climate change, a lack of arable land, and political persecutions.[54] Farming on minefields is a last resort. It is once the mines are cleared that the lands become more attractive to development, but the process of landmine clearance pushes these already vulnerable populations away from their last resort homes.

On another research visit, the platoon and I toured a road that was to be cleared on King Norodom Sihamoni's order in Cambodia. The road's clearance was prioritized due to its proximity to Thailand and as a potential casino construction project at the border. Nearby, a school had been closed so that the platoon could reside there during clearance. As a yellow-striped bird flew from a tree, the platoon leader wistfully said, "I wonder what will happen to these birds." We all looked up, knowing the trees would be destroyed and that the birds' homes would be lost.

While driving, the villagers stared at us from the side of the road. I wondered if they feared for their homes as well. Their fear would have been justified. Unfortunately, the final land release stage of landmine clearance does not always go to the original residents. As a result, land release sometimes causes greater harm to local communities in terms of land rights or land tenure.

In many mine-contaminated regions, such as Southeast Asia, the Middle East, South America, and parts of Africa, land grabbing after mine clearance is a common problem. Land grabbing occurs when corporate or state initiatives coerce rural land holders to give up their land. These acquisitions displace the population, often causing the villagers to migrate to urban centers where they often experience poverty and marginalization. Research conducted by the Center for International Stabilization and Recovery and commissioned by the Geneva International Centre for Humanitarian Demining Mine found that land rights are highly threatened in landmine-contaminated places.[55] Mine clearing organizations are directly implicated in these land grabs, since the land release step leads to greater competition over the cleared land. This research also found that women-led households and Indigenous communities are more vulnerable than male-led households to land grabs after landmine clearance. Because they are often less aware of their land rights and have less

livelihood alternatives, these marginalized groups are more likely to have their lands stolen after mine clearance.

Landmine clearance often paves the way for corporate interests to develop the land. Increased foreign investments often supersedes local or Indigenous land rights. Various U.S. policies protect sacred lands and the environments of Indigenous groups,[56] but very few take into account how clearing military waste can damage these lands. And, while protocols are in place to protect Indigenous lands and environments during the process of landmine clearance, they are often ignored. In Southeast Asian countries that are dependent on aid and development, landmine clearance is often used to take over lands and even legitimize land grabbing.[57]

Implications for the United States and China

Beyond the local context and impacts, there are implications for the United States and China. It is well known by villagers and deminers alike that the majority of ERWs come from the U.S. bombings and that many of these bombs are also manufactured in China. A common public presence of both these foreign powers is literally the leftover materials of their weaponry. While Chinese development has countered some of this harmful presence in the region, the ways in which the BRI development leads to land grabbing and the ways in which their development mostly supports the elite is also well known on the ground. On numerous visits, villagers and deminers would tell me that they did not trust Chinese development initiatives, such as the building of roads, and resented the fact that locals were not hired for these jobs (instead, many of these projects hire Chinese workers rather than employing local residents). These on the ground resentments provide opportunities for the United States to repair relationships with simply a more public and beneficial presence through landmine clearance where the land is returned to the villagers and through projects that employ local residents.

Post-conflict contexts—where military waste exists—are also more likely to devolve into further conflicts. At times, this is partially due to a lack of resources leading to continued competition. Atrocity prevention must ensure land releases are returned to local villagers, which is a written rule rarely enforced. Often, corporate interests for minefield clearance are prioritized rather

than local community needs, exacerbating resource-related conflict. Military waste clearance should also have a greater consideration for environmental protections, which would often correspond to local villagers' subsistence farming needs (and are contrary to corporate interests).

While the 'do no harm principle' of humanitarian demining should in theory protect these land rights and environmental protections, they are often un-enforced. The strength of Indigenous civil society has been tied to the protection of these rights.[58] Ecosystem protection and land rights should be more explicitly part of the humanitarian effort of military waste decontamination and incentives should be made to enforce these protocols. China's multiple projects in Southeast Asia promote themselves through a "green BRI" movement, but research has shown that these initiatives prioritize economic and political interests that serve China rather than ecological concerns.[59]

The United States has an opportunity to improve its standing influence in the region by countering these BRI projects with improved ecological protections during landmine clearance and the secured release back to the original inhabitants, mitigating their risk for land grabbing after mine clearance. Since the increasing disasters of climate change, the Pentagon has asserted that climate change is a security threat,[60] especially by compounding the factors that forced migration add to the burdens already plaguing marginalized villagers, like land grabbing, corporate development, and local ecological disasters. These factors destabilize allies and other countries in places like Southeast Asia, and the United States has a clear interest in addressing them.

Both the United States and China have contributed to the problem of ERW contamination in Southeast Asia and its subsequent land grabbing issues, but both have opportunities to be part of the solution. By enhancing its focus on mine clearance that is both equitable to minority populations and sustainable for the environment, the United States can improve its relations with the Subregion. Working together with China will also offer opportunities for the United States to have a more public-facing presence that will lead to better influence on the ground in the region, which now is dominated by Chinese influence even though Chinese soft power in the region is vulnerable to competition.[61] Sustainable and equitable landmine clearance also offers a means to approach climate migration from another angle by attending to the scarcity of land from a military waste perspective, not just a climate change

prospective. By ensuring that marginalized communities are better able to maintain their homes, climate migration can be mitigated in a multi-pronged approach. This paper offers a few recommendations to mitigate land grabbing risks and repair relations after war in the region.

List of Recommendations:

- USAID should initiate a center that addresses issues of security and environment together that will monitor landmine clearance and its ecological effects. Some plans to initiate a center like this are in the works, though other bureaus like Bureau for Resilience and Food Security and Bureau for Conflict Prevention and Stabilization are already relevant to these issues and can be operationalized to conduct monitoring activities for U.S.-funded demining clearance.

- The above-mentioned bureaus or the newly institutionalized Bureau for Environment and Security should also implement land rights workshops for vulnerable communities who live in contaminated areas in Southeast Asia. Much of land grabbing after landmine clearance is coerced through unlawful signatures and the kind of 'dress rehearsal' that occurs when minefield clearance pushes residents off their homes. Interventions like workshops that inform residents of their land rights, innovated in an iterative process after monitoring, would help prevent land grabbing after mine clearance.

- USAID should participate in The Working Groups established by ARMAC and contribute to the Working Group's funding, which at the moment is funding by China. USAID should direct its funding already marked for landmine detection to the ARMAC Working Groups and assert more of a public presence at the meetings.

- More independent research should investigate the connections between landmine clearance and land grabbing. Climate migration should be part of the priorities in U.S.-funded research calls.

- The Geneva Institute for Humanitarian Demining should be utilized to ensure land release after mine clearance through the institution of landmine clearance observation teams on the ground.

- The USAID should add land release stipulations to their funding streams to GICHD and other landmine operations.

- Through international bodies like the GICHD, competitive funding for minefield clearance should be increased through programs that incentivize land release. This could work similar to how gender mainstreaming initiatives (which have proven quite effective) work through the UN where NGOs and governments are likelier to obtain funding when they provide evidence that minefield clearance releases land back to the original inhabitants.

- Given the likelihood of increased use of landmines in Europe in places like Ukraine and in Southeast Asia like Myanmar, the United States should return to the Obama-era policy that aligns U.S. policy with the Mine Ban Treaty outside of the Korean peninsula. The reversal of this policy in 2020 was a dangerous message to the world, especially to Southeast Asia, that the United States does not take the issue of military waste seriously.

The views expressed are the author's alone, and do not represent the views of the U.S. Government or the Wilson Center.

Notes

1 My research for this paper comes from on-site observations and interviews with deminers and villagers I conducted during 35 minefield tours over the past decade (2013, 2015-2016, and again 2018 and 2020), as well as literature research and long-term on-site research while embedded with a platoon of Cambodian deminers. Further research focused on the connection between landmine clearance and land grabbing in the Subregion is needed, which has been included in the policy recommendations below.

2 Scholars have recently urged that the literature use terms such as "land investment" or "acquisitions" but for the sake of simplicity, this paper will use land grab according to the FAO definition.

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