

Appendix 2

Case study of the Lao People's Democratic Republic

Background on the Lao People's Democratic Republic

Bordered by Thailand, Myanmar, China, Vietnam and Cambodia, the Lao People's Democratic Republic (Lao PDR) is a landlocked country, 236,800 square kilometres in size (slightly larger than Great Britain), and sparsely populated (5 million inhabitants, or 21 per square kilometre). Most people reside in the Mekong River floodplain in the west. Its eastern border with Vietnam is dominated by the Annam mountain chain through which crossed the road network known as the Ho Chi Minh Trail, made famous during the Vietnam conflict as the route taken by North Vietnamese troops into South Vietnam, and the site of saturation bombing by the United States of America (US).

Lao PDR is classified as one of the least developed countries, with an average Gross Domestic Product (GDP) of about US\$280 in 1999.¹ In 1993, 46 per cent of the population fell below the national poverty line, even though Lao PDR is reasonably egalitarian.² In regional terms, the remote north and south-eastern parts of the country are poorest, in part because infrastructure and public services are even more rudimentary than elsewhere. In 1997 Lao PDR received US\$71 per capita in official development assistance, equivalent to 19.5 per cent of GNP.³

Public expenditure of social services is extremely modest: 1.3 per cent of GNP on public health and 1.9 per cent of GNP on public education in 1996. This, coupled with the country's low-income level, is reflected in key social statistics. The average life expectancy is a mere 51 years. Infant mortality stood at 98 per 1,000 live births in 1997, while maternal mortality averaged 660 per 100,000 live births from 1990-97. Only 51 per cent of people have access to safe drinking water. Net enrolment rates in 1996 were only 18 per cent for secondary school and 72 per cent at the primary level, with many students dropping out before they attain even basic literacy or numeracy.

¹ In Purchasing Power Parity (PPP) terms it was about US\$1,725

² In 1992 its Gini index (a measure of inequality) was 30.4 — about the same as Canada's

³ In addition, remittances from abroad amount to 11 per cent of average household income (Government of Lao PDR, 1999c)

Key social and economic features⁴

Poverty and the rice economy

Lao PDR is an extremely poor country. Malnutrition is prevalent, with 10 per cent of the population acutely, and 47 per cent chronically, malnourished. The vast majority of Lao households (88 per cent) engage in agriculture, and fully 77 per cent of all households grow rice (Government of Lao PDR, 2000:2) far and away the most important crop and food source.⁵ With an average per capita consumption of 582 grams per day, rice accounts for 25 per cent of household consumption by value, and almost half of all food consumption (Government of Lao PDR, 1999a:3-4, 13).⁶ Lao PDR truly has a "rice economy".

Land tenure and holdings

Almost 97 per cent of agricultural lands are under "owner-like" tenure, giving most households secure access to land (Government of Lao PDR, 2000:4). Land distribution is reasonably equitable, but the average size of land holding is only 1.62 hectares, including fallow and non-agricultural land (*ibid.*:3). Only a quarter of farmers use chemical fertiliser or improved seeds, and only 20 per cent of land is irrigated, which means yields per hectare are low (for rice, averaging 2.9 tons per hectare in 1998). Many agricultural holdings are therefore too small to support the average household of 6.5 persons or 5 "consumption units".⁷ Almost half of all Lao households cite lack of land or water control (irrigation for second cropping plus protection from drought and flooding) as the main obstacles to earning higher incomes.⁸ Accordingly, Lao farmers spend about half their working hours on non-agricultural pursuits (hunting/fishing, part-time employment, handicraft) to supplement incomes and consumption (Government of Lao PDR, 1999b:24).

Ethnicity

Lao PDR is an ethnically diverse society, with the government recognizing 65 distinct ethnic groups. Roughly 60 per cent are ethnic Lao: either Lau Loum (lowland Lao) or Lao Thai, who retain more traditional culture. Some 34 per cent — mainly in the north — are Lao Theung (upland Lao), who practise swidden (slash-and-burn) agriculture and hunting. The remainder are Lao Sung (high Lao) hill tribes, the largest of which are the Hmong, some of whom were trained by the Central Intelligence Agency during the Vietnam War. There are also significant numbers of ethnic Chinese and Vietnamese.

⁴ This section uses statistics from a variety of sources, including: Government of Lao PDR, 2000; Government of Lao PDR (1999b); Government of Lao PDR (1999a and 1999b); and WFP (1999).

⁵ In Lao, the same word is used for "food" as for "rice".

⁶ Lao households produce much of what they consume — 94 per cent of agricultural households produce mainly for their own consumption (Government of Lao PDR, 2000:3). Therefore expenditure data — capturing only what is purchased — do not give a clear picture of well-being. The Lao expenditure and consumption survey therefore uses the concept of consumption, valuing household production for own consumption in the same way as if this had been purchased (Government of Lao PDR, 1999a:4).

⁷ Household numbers are converted to consumption units thus: First adult=1, other adults=0.9, children 7-15=0.7, children under 7=0.4. This reflects that members share some expenses and that children need less food than adults (Government of Lao PDR, 1999a: 40).

⁸ Only 3 per cent cited a shortage of jobs as their main obstacle (Government of Lao PDR, 1999a:36, Table 32).

Tensions do exist among the various ethnic groups.⁹

Politics and decentralisation

The Pathet Lao (Land of Laos) resistance organisation was formed in 1950 to fight the French colonial government. Following full independence in 1954, it formed the Lao People's Revolutionary Party (LPRP) as its political arm, which briefly entered a coalition government prior to a military coup in 1959. Armed struggle between the Pathet Lao – based principally in the north-east bordering North Vietnam – and the government continued throughout the period of the Vietnam War, until in late-1975 the Pathet Lao assumed power and declared the Lao People's Democratic Republic. Following a period of harsh "accelerated socialism" when many thousands were imprisoned or sent to re-education camps, a series of economic and political reforms started in 1979. The present constitution, passed in 1991, drew a distinction between the LPRP and the government, and strengthened the role of the National Assembly. However, almost all government members and senior public servants are members of the LPRP. The military remains influential within the party and, through its Bolisat Phatthana Khet Phoudoi Import-Export Company, is active in the economy.

Central control over the provinces has traditionally been weak, owing in part to poor transportation and communications links. Provincial administrations had almost complete fiscal autonomy until a 1991 decree that all public revenues must be collected by the national government and that provincial expenditures would be specified in the national budget. Recent economic reforms may be working against centralisation. The economic gap between the capital, Vientiane, and the provinces has grown because most foreign investment has gone to the capital and, as international trade increases, regions are becoming more integrated with China (north), Thailand (centre and south), or Vietnam (north-east and west).

Lao PDR is not a signatory to the Convention on the Prohibition of Anti-Personnel Mines (otherwise known as the Ottawa Treaty), although the Ministry of Foreign Affairs is co-ordinating a review of this position.

Development priorities

Economic reform

Initially the LPRP government introduced a centrally-planned economy, including agricultural collectivisation, which was strongly opposed and resulted in stagnation of the key agricultural sector. Tentative reforms were introduced in 1979, followed by a shift to a market-oriented economy in late 1986 with the introduction of the New Economic Mechanism. This featured a phased abandonment of collectivisation, coupled with privatisation, fiscal and monetary reform, and liberalisation of both trade and foreign investment. In July 1997 Lao PDR joined the Association of South-East Asian Nations (ASEAN) and the ASEAN Free Trade Area, suggesting that further strengthening of international links – both political and economic – is anticipated. From the start of economic reform until the 1998 Asian financial crisis, economic growth

⁹ Many Hmong emigrated to the US following the 1975 takeover by the Pathet Lao. There are about 50,000 Hmong in the US, with perhaps 200,000 in Lao PDR.

was strong (averaging 7 per cent from 1992-97) but volatile, due mainly to periodic droughts affecting the dominant rice sector.

The impact of the Asian crisis

Growth in 1998 fell to 4 per cent, but this was buoyed by the huge subsistence agricultural sector, which, lying outside the market economy, is only indirectly affected by financial crisis. Annual inflation accelerated markedly to about 100 per cent in 1998, and may have reached 140 per cent in 1999. The fiscal deficit widened, forcing the government to cut its investment programme. Lao PDR has failed to rebound from the crisis as quickly as its neighbours, and both economic growth and government finances remain weak. Because of difficulties raising tax revenues, the government has resorted to financing some investment projects "off budget" by granting timber concessions to parastatals. These are expected to provide US\$30 million for public investment projects in 1999-2000 – equivalent to almost 60 per cent of total domestic financing for public investment and nearly 20 per cent of government revenue from other sources.

Current development priorities

In 1996 the National Assembly set eight priorities for development:

- Infrastructure development,
- Rural development,
- Increase of food production,
- Promotion of production of commodities,
- Reduction of slash and burn agricultural practices,
- Human resource development,
- Promotion of foreign economic relations,
- Development of services.

In practice, public investment expenditure has concentrated on economic infrastructure – particularly road construction –, which has absorbed perhaps half of all public investment in recent years. This directly addresses the government's first development priority, but is also critical for rural development and to increase food production by allowing farmers better access to markets for their production and agricultural input requirements (seeds, fertiliser, etc.), and to the "incentive goods" needed to attract subsistence farmers into the market economy.

The government recently launched two major new investment programmes to promote rural development and food production, and to reduce environmentally destructive slash-and-burn agriculture. One is an expanded irrigation programme, for which it has purchased thousands of pumps from neighbouring countries and India. Second is a new rural development strategy based on larger "focal centres", where it plans to supply health clinics, schools, transportation, electricity and other public services in sufficient quantity to attract voluntary resettlement by households now practising slash-and-burn agriculture in communities too small and remote to warrant such public services. Both programmes have attracted controversy. In the past, public-sponsored irrigation schemes have suffered from lack of maintenance by government or water users.¹⁰ Resettlement programmes are viewed with suspicion by donors and some

¹⁰ The importation of thousands of pumps also depleted scarce foreign exchange reserves.

ethnic groups because of earlier forced resettlement measures, thought to be motivated by politics or the desire for access to timber concessions in addition to the official concern over environmentally-harmful agricultural practices.

Future prospects

The government has set an overall goal of graduating from the ranks of the least-developed countries by 2020, and expects most growth to come from the market economy. This could increase inequality. Accordingly, the new five-year development plan for 2001-2006 is expected to focus significant public investment on poverty reduction, including rural infrastructure investments to expand the reach of the market economy and allow provision of basic public services beyond the Mekong corridor.

To grow fast enough to achieve this target within a generation, Lao PDR must attract significant foreign finance from official and private sources. This in turn depends on restoration of macro-economic stability. While the manufacturing and services sectors can be expected to grow fastest, the vast majority of Lao PDR will continue to depend on agriculture for the foreseeable future. Performance of the rice economy is therefore critical for both food security and raising rural incomes sufficiently so farmers can buy manufactured goods produced in the cities. Increased agricultural income is also necessary to slow rural-urban migration, which could overwhelm the growth capacity of the urban areas. Rural households therefore need access to more land or to improved inputs (irrigation, fertiliser, high-yielding seeds, tractors, credit) – or both – to increase their production and incomes.

For the coming decade, the government foresees a “dual” agricultural economy (Government of Lao PDR, 1999b). Farmers in the east-central part of the country, better served by roads and with access to urban markets and Thailand, will increasingly enter the market economy. They will use modern inputs to increase productivity per hectare, then sell to the urban markets. Farmers in more remote regions, lacking ready access to markets or modern inputs, will continue low-yield subsistence agricultural practices. For them, enhanced well-being will chiefly depend on having access to sufficient land to feed the household.

History of mine and unexploded ordnance contamination

The independence war for Lao PDR began during the French colonial era, continued against the Japanese during the Second World War and, subsequently, against the French when they attempted to re-establish control over Indochina. Following the defeat of the French in 1954, fighting continued between the Pathet Lao, based in the north-eastern provinces of Phongsali and Houaphan, and the US-backed Royal Lao government. The principal contested provinces – Luang Phrabang bordering Phongsali, and Xieng Khouang bordering Houaphan – are heavily contaminated by UXO and, in some areas, landmines.

Lao PDR was also drawn into the wider Indochina conflict between the US and North Vietnam. The US had heavily fortified the “demilitarized zone” dividing North and South Vietnam, so the North Vietnamese Army developed a network of paths and

roads through eastern and southern Lao PDR,¹¹ allowing troops and supplies to skirt the demilitarized zone. Starting in 1964, the US responded by saturation bombing of this supply route, which it called the Ho Chi Minh Trail. This bombing, which continued until 1973, was the most intense in history, reaching 900 sorties per day and averaging the equivalent of one mission every eight minutes for nine years.¹² Over two million tons of ordnance was dropped on Lao PDR — equal to the combined total dropped by all combatants during the Second World War. Some 10-30 per cent of this ordnance, including millions of bomblets or “bombies” from cluster bombs, did not explode. In addition, the North Vietnamese Army established munitions depots along the Ho Chi Minh Trail, some of which were partially detonated by air strikes.

US and South Vietnamese troops also invaded eastern Lao PDR to block the Trail. The largest battle (called Lam Seun 719, in Savannakhet) reportedly involved 60,000 South Vietnamese against 100,000 North Vietnamese Army troops, and lasted 42 days before the South Vietnamese withdrew. Significant land battles also took place between Pathet Lao and Royal Lao forces in the Southern provinces of Champassak and Attapeu.

In addition to bombs, the US also dropped massive quantities of defoliants and herbicides, including Agent Orange. Studies have confirmed that the use of these chemicals resulted in significant dioxin contamination in nearby western Vietnam, but a study for Lao PDR is only in the planning stages (Hatfield Consultants, 2000).

Impacts¹³

The civilian population

The civilian population, and particularly those living in the north-east, east, central, and south-east regions, was profoundly affected by the prolonged conflict. In addition to those killed, thousands abandoned their villages and farms in the war zones — some to live in caves for protection. Combatants also resettled communities by force.

Following the Pathet Lao victory in 1975, hundreds of thousands of Lao who were affiliated with the Royal Lao government or directly with the US fled the country for refugee camps in Thailand or permanent residency abroad, mainly in the US. However, most of those internally displaced by the war returned to re-establish their farms and communities, and encountered massive UXO contamination. There is no clear documentation concerning casualties and adaptive measures taken during this initial period of spontaneous resettlement. It was not until June 1996 — 21 years after hostilities ended — that HI undertook a broad survey of the impact of UXO contamination on behalf of UXO LAO, the government agency established to co-ordinate mine and UXO programmes. In brief, the survey’s findings were:

- Over 2,800 villages, or 25 per cent of all communities in 15 of the 18 provinces/special zones in Lao PDR, reported the continued presence of UXO, while 214 villages reported landmines;
- Almost 1,325 villages reported UXO in the village or along roads or paths to fields or other communities;

¹¹ From north to south, the Trail ran through Bolikhamsai, Khammuane, Savannakhet, Saravane, Sekong, and Attapeu provinces.

¹² The US flew 580,344 bombing missions over Lao PDR between 1964 and 1973.

¹³ This section draws on HI (1997a).

- Almost 12,000 UXO-related accidents were reported, with accident rates peaking at about 1,400/year in 1974 as people returned to their homes and fields. Casualty rates fell to an average of 360 per year from 1977-1986, then 240 per year for the following decade;
- Slightly more than half the victims died, with most others suffering amputation (31 per cent), paralysis (6 per cent), or blindness (4 per cent);
- 31 per cent of all victims were children (mostly boys);
- Almost one third of accidents occurred within the village, with a similar number occurring in rice fields;
- A significant, but falling, percentage of accidents arose when men were purposely handling UXO, often attempting to dismantle them for scrap metal (for sale to Vietnamese metal traders) or explosives (for use in fishing or clearing stumps);
- Accidents peak at the end of the dry season (March-May) when farmers are ploughing lowland rice fields or, in upland areas, clearing new fields by slash-and-burn.¹⁴

The overall picture is a familiar one, with a high rate of casualties during the initial return to villages abandoned during the conflict, followed by a slow decline in accidents as those in affected communities adapt to the contamination. Risk-taking behaviour, as extremely poor people attempt to capitalise on the UXO "resource", also resulted in many casualties in the early years of contamination. A significant number of villages have had to relocate due to mine contamination.

Community adaptations to UXO contamination involve difficult choices between curtailing economic or social activities and risking death or injury from UXO. In Lao PDR, many households could mobilise sufficient labour to expand their rice fields, but choose not to do so because clearing new land is too dangerous. Swidden farmers also reduce the land used because of fear of contamination. This implies a change in cropping patterns, returning to use lands after, say, five years fallow rather than ten, and thus reduced yields as the land would not have regained full fertility. In Lao PDR, such adaptations would mean that some households would accept seasonal or chronic malnutrition as the cost of reducing risks associated with UXO.

Those in affected communities would still experience heightened insecurity. Building a cooking fire while working rice fields could cause buried UXO to explode. Accidents still take place while hunting, fishing, herding livestock, or simply visiting the neighbouring community. More than 100 UXO accidents are still reported to authorities each year, implying a continuing rate of perhaps 200 accidents a year because many remote communities do not report.

Environmental impact

The most obvious environmental issue relates to the reduction in land used by swidden farming households in contaminated areas. This could either reduce or increase the environmental harm caused by extensive slash-and-burn practices. The total area exploited by slash-and-burn would be reduced, but the land used would be subject to more intense exploitation. Whether more or less harm is done would depend on the

¹⁴ More accidents have been reported in upland farms than in the lowland areas. Upland farmers burn their fields before planting, sometimes causing ordnance to explode from the fire.

micro-climatic, soil, and vegetation conditions, and whether land constraints cause swidden farmers to convert more quickly to permanent cultivation.

Recent studies in Western Vietnam have found high levels of dioxin—a potent carcinogen—in areas sprayed with Agent Orange during the Vietnam War (Hatfield Consultants, 2000). There have been unusually high rates of birth defects and “wasting” diseases in the affected communities, and epidemiological studies are trying to confirm whether these are the result of dioxin contamination. The researchers have also found high levels of dioxin in the food chain; particularly duck liver and fish raised by aquaculture. Agent Orange was also sprayed extensively in parts of eastern Lao PDR, but similar studies have not yet started.

Explosives from “harvested” UXO are used for fishing, causing significant damage.

Public investments/Development projects

Many rural development projects have been adversely affected by UXO contamination, including those supported by international NGOs. Problems with UXO led to the initial humanitarian demining programme in Lao PDR, established in Xieng Khouang in 1994 by the Mennonite Central Committee and MAG. Action contre la Faim has reported numerous problems with UXO in the villages it works with in Sekong and Champassak. Oxfam has reportedly paid for villages to hire bulldozers from commercial firms to “clear” new fields for cultivation in Saravane.

The major aid agencies are aware of the UXO contamination and, in general terms, recognise it as a broad development problem.¹⁵ Some larger aid-financed infrastructure projects (road and bridge construction, dams for hydro-electricity) have been affected by UXO contamination. In some cases, explicit provision for UXO/mine clearance has been made during the planning phase of the project, while in others UXO was discovered only during the construction phase. The study team did not hear any cases in which donor-financed projects were cancelled because UXO contamination would increase costs enough to make the project non-viable.¹⁶ However, some government-financed projects have, reportedly, been cancelled or delayed due to high costs of UXO clearance.

Broader impact

There has been very little mention of UXO as a general problem in official development planning or strategy documents. There is no mention in the current five-year development plan, adopted in 1996. The 1999-2000 *Socio-Economic Plan*, approved in October 1999, has but one sentence (on the need to train UXO personnel) in 34 pages of text. Given the scale of UXO contamination, this omission seems curious.

¹⁵ The World Bank has noted that UXO contamination adversely affects all rural development projects in at least two ways. First, it means that potentially rich agricultural land is unexploited, reducing rural prosperity and, thereby, the potential benefits accruing from rural development projects such as irrigation schemes and feeder roads. Second, UXO clearance and destruction raises the costs of rural infrastructure projects (World Bank, 1997:8). The Bank has not, however, attempted to quantify these impacts in formal cost-benefit terms.

¹⁶ However, budget provisions for UXO survey and clearance in some cases seemed low, with these costs allocated to “local financing” (i.e., a Government of Lao PDR responsibility). This suggests the budgets for UXO clearance are based on rather cursory analysis.

History of mine action in Lao PDR

Immediate post-war period

During the war, the Lao army cleared roads destroyed by bombing to maintain vital transportation routes. Following the war, the army and Vietnamese advisers continued clearance of roads, plus schools, *wats* (temples), and sites for new public buildings, irrigation works, etc. They also cleared a small number of villages, mainly in the north. The Chinese army did clearance in support of a Chinese-funded road construction project and, in 1979-80, a Russian aid programme cleared some farmland in Xieng Khouang. The Lao army is still used for clearance on large aid projects, mainly bridge and road construction, when such clearance is to be financed by the government rather than the donor.

Commercial demining companies are also present in Lao PDR, working mainly for mineral exploration companies, refugee resettlement organisations, and donor-funded infrastructure projects (roads, hydro-electricity). Milsearch, from Australia, undertook its first contract in 1992, and has since worked on over 30 assignments across eight provinces.¹⁷ GERBERA, a German company, also takes commercial assignments, as well as undertaking humanitarian demining on behalf of the German aid programme. Other demining companies have had contracts in Lao PDR, but do not maintain permanent offices in the country.

Humanitarian mine action

Initial phase (1994-97)

The Mennonite Central Committee first brought the UXO problem to international attention. It also initiated a community awareness programme and contacted MAG to assist with UXO activities in Xieng Khouang. MAG assumed responsibility for community awareness in May 1994 and began training Lao deminers. It initiated clearance work in October of that year.

Subsequent discussions among the government, UNDP, UNICEF, and MAG led to the establishment of the Lao PDR UXO Trust Fund in late 1995, followed in February 1996 by a decree¹⁸ establishing the Trust Fund Steering Committee and the Lao National UXO Programme. UXO LAO is a national public institution with autonomous financial status within the Ministry of Labour and Social Welfare with responsibility for:

1. Co-ordination of UXO-related activities within the country, including the UXO work implemented by other agencies;
2. Preparation of annual work plans and reports;
3. Managing the Training Centre;
4. Setting national standards;
5. Assisting the Steering Committee in resource mobilization for the Trust Fund.

Its goals are to:

- Reduce the number of civilian UXO casualties; and

¹⁷ In Lao PDR, Milsearch operates under a joint venture with the major army company.

¹⁸ Prime Minister's Decree 49/M.

- Increase the amount of land available for food production and other development activities.

One of UXO LAO's initial actions was to issue a request for proposals for a nation-wide socio-economic survey to quantify the extent of mine/UXO contamination and to establish priorities for clearance. This contract was awarded to HI in May 1996, and undertaken in three phases: Preparatory (develop questionnaire, mobilize staff); Phase 1 (data collection at provincial and district levels); and Phase 2 (village-level survey). Handicap International engaged local staff used in the 1995 National Census and used the coding system developed for that census by the National Statistical Centre to identify provinces, districts and villages. In addition, UXO LAO commissioned the Science, Technology, and Environment Ministry to undertake mapping and entering digitised information on villages, roads, and rivers so the survey results could be plotted on maps. This combined effort provided Lao PDR with its first full GIS – an important by-product.

Given the significant decentralisation in Lao PDR, coupled with poor transportation and communication links, the initial work plan provided for the establishment of small co-ordination offices in each province affected by UXO. In 1996, offices were opened in Xieng Khouang, Houaphan, and Savannakhet.

In May 1996, the US and Lao PDR signed a memorandum of understanding for US training support and in-kind assistance (equipment, vehicles, and materials). At the same time, UXO LAO obtained a residential training facility from the Ministry of Agriculture, and minefield clearance courses began in July. Subsequently, courses were organised for community awareness, medics, and provincial co-ordinators, plus train-the-trainer programmes for a cadre of Lao trainers.

In August 1996 the Government of Lao PDR approved a UXO programme for Houaphan, to be implemented by GERBERA and funded by German bilateral assistance. Actual clearance operations began in November 1996.

UNICEF assumed the lead donor role with respect to community awareness. Drawing on the experience of Mennonite Central Committee and MAG, UNICEF and the new community awareness section within UXO LAO developed a strategy to establish a coherent national programme for UXO awareness. A community awareness Technical Working Group was established, and in late 1996 it approved a strategy that articulated a three-pronged approach:

- Community awareness teams under UXO LAO to visit affected communities;
- Liaison with the Ministry of Education to integrate community awareness messages into the school curriculum;
- Development of non-formal education programming, via mass media (principally radio), posters, etc.

Consortium (a consortium of three American NGOs) took the lead in working with the Ministry of Education to develop a UXO awareness curriculum for primary schools. This was tested in Xieng Khouang in 1996.¹⁹ It also assisted with the production of posters to inform people of restrictions on the purchase, sale, and use of war material.

¹⁹ The revised curriculum has since been adopted by the education authorities in four provinces.

Drawing on lessons learned by MAG in Xieng Khouang, UXO LAO split deminers into two types of units: roving teams (to destroy ordnance on the surface), and clearance teams (to detect and destroy sub-surface ordnance). Roving teams allow for rapid response to immediate dangers presented by UXO on the surface, including caches of UXO moved by villagers from their fields, paths, etc. Clearance teams provided some capacity for the far more time-consuming task of clearing land for agricultural or development purposes.

Expansion phase (1997-1999)

The socio-economic survey was completed and published in October 1997. Even before the final results were available, it was clear UXO contamination was so widespread that programmes would be needed in the majority of provinces.²⁰ UXO LAO pursued a strategy of enlisting implementation partners to establish provincial operations. This allowed for rapid expansion, and gave interested donors the option of contributing to UXO LAO via the Trust Fund administered by UNDP or providing direct funding to an international NGO or other donor-country organisation. Table 1 provides the complete list of provincial operations. In addition, a number of countries provided funding via the Trust Fund, some of which was earmarked for specific expenditures, or provided direct, in-kind assistance to UXO LAO.

Table 1 - Provincial Mine Action Operations

Province	Implementing Partner	Start-up	Initial funding
Xieng Khouang	Mines Advisory Group	Oct-94	UK, Sweden, CIDSE (direct)
Houaphan	GERBERA	Nov-96	Germany (direct)
Savannakhet	Handicap International	Apr-97 (Belgium)	Belgium (via Trust Fund)
Saravane	Mines Advisory Group	Jul-97	EU, UK (direct)
Champassak	Belgian military	Sep-97	Belgium (direct)
Sekong	Norwegian People's Aid	Oct-97	Norway (direct)
Attapeu	Norwegian People's Aid	Oct-97	Norway (direct)
Luang Prabang	GERBERA	Apr-98	Germany (direct)
Khammouane	World Vision (Australia)	Jan-99	Australia (via Trust Fund)

From 1995 to the end of 1999, an estimated US\$34 million in UXO expenditures had been financed by donors, with the breakdowns as indicated in the following Chart 1.²¹

Clearly, most financing (71 per cent on average) has been channelled through the six implementing partners rather than the UXO LAO Trust Fund. Trust Fund expenditures as a percentage of the total peaked at 47 per cent in 1998 before falling back to about

²⁰ The Socio-Economic Survey recommended that UXO operations be established in nine of the 17 provinces, plus the Saysomboune "special zone", which is under direct administration of the national government because of ongoing military activity. UXO LAO has not set up in Saysomboune.

²¹ The expenditure breakdowns are study team estimates based on data supplied by UXO LAO and some of the implementing partners. The analysis is complicated by incomplete reporting, because organisations have different financial years and expenditure classifications, and because most of the funding flows through more than one organisation before it is finally expended.

one-quarter the following year.²² As well, an estimated 44 per cent of expenditures from the Trust Fund were earmarked for specific purposes. Therefore, over the 1995-99 period, about 83 per cent of total expenditures have been tied in some form – either channelled through an NGO or private company, or earmarked for specific purposes. The US has supplied about 28 per cent of the funds expended through 1999, followed by Germany (12 per cent), Norway (11 per cent), Denmark (10 per cent), and the EU (7 per cent). Except for about two-fifths of Norway's monies, all funding from the major five donors has been channelled through implementing partners or earmarked for specific purposes. Much of this money has been to purchase equipment or provide trainers for Lao deminers, community awareness personnel, medics, and supervisors

Chart 1: Expenditures 1995-99 (estimates)

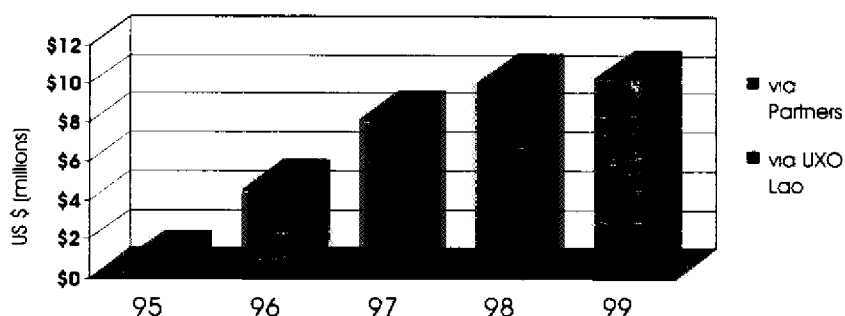
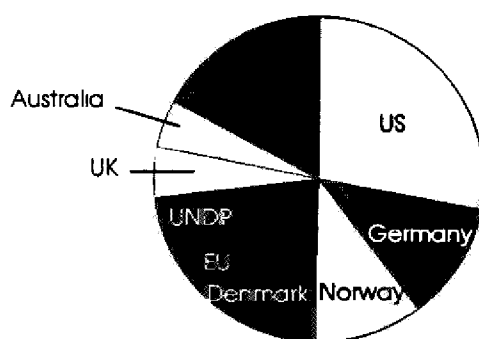


Chart 2: Source of Funds Expended 1995-99



Transition phase (1999-2002)

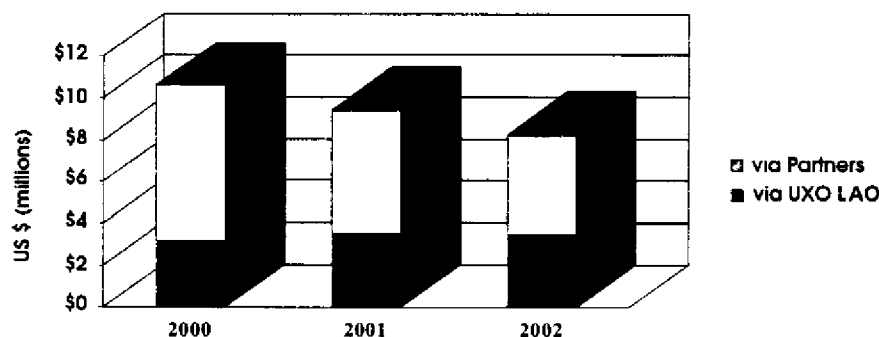
The first of the implementing partners (MAG and GERBERA) engaged local staff directly and were responsible for operations management in Xieng Khouang, Saravane, and Houaphan. Since mid-1997, new implementing partners have operated principally as advisors, responsible in the main for capacity building (including most equipment

²²In 1998, more than US\$1 million of the US \$1.7 million in "core support" from UNDP to UXO LAO was expended.

acquisition). In such cases, Lao personnel were hired and trained by UXO LAO and then assigned to provincial operations.²³ From July 1999 to April 2000, UXO LAO began assuming direct responsibility for managing the Houaphan, Saravane and, finally, Xieng Khouang operations. Implementing partners retain their capacity-building roles, and are expected to phase out of the programme over time.

The Lao government is clearly concerned at the expansion of the programme and its capacity to maintain this scale of operations, should donors significantly reduce their assistance. Accordingly, it has decided to halt further expansion, and will maintain a staffing level of 1,100-1,200 personnel, of which approximately half (including section leaders) are deminers. Also, in mid-1999 the government required UXO LAO to reduce staff salaries by an average of 22 per cent.²⁴

Chart 3: Planned Expenditures 200-02



Victim assistance²⁵

The above figures do not include expenditures on victim assistance, as UXO LAO is not involved in this area.²⁶ The Ministry of Public Health (MoPH) is responsible for most aspects of victim assistance, including the National Rehabilitation Centre, which operates in Vientiane and in six provincial prosthetic and orthotic centres. The Ministry of Labour and Social Welfare (MLSW) includes the Department of War Veterans and Social Welfare, which has a central prosthetic centre north of Vientiane plus a number of "disabled villages" established for war veterans. There also is a Lao Disabled Peoples Association and a National Committee for Handicapped Persons, which serves principally as a communication link between the MoPH and MLSW. There is a good orthopaedic and trauma surgery hospital in Vientiane supported by French assistance.

²³ UXO LAO's policy is to engage staff from the districts in which it is operating, so long as the candidates have the minimum qualifications. A number of staff have close relatives who were killed or injured by UXO. A proportion are women, generally, but not invariably, assigned to the community awareness teams.

²⁴ Initially, salaries for deminers and community awareness personnel were based largely on the salaries established by MAG for its locally-engaged staff, which were significantly higher than comparable public service positions.

²⁵ This section is based on Landmines Survivors Network (1998) and an interview with Thomas Keolker of the Co-operative Orthotic and Prosthetic Enterprise (COPE).

²⁶ The decree establishing UXO LAO makes no mention of victim assistance.

A number of international NGOs have provided assistance for the disabled, including Handicap International (prosthetics, physiotherapy), World Vision (prosthetics), World Concern (community-based rehabilitation, including micro-credit), Consortium (financial assistance to UXO victims), DED from Germany (physiotherapy), and POWER (prosthetics). In 1998, POWER joined with other NGOs and relevant government agencies to form Co-operative Orthotic and Prosthetic Enterprise (COPE). It supports the National Rehabilitation Centre with technical assistance, equipment and training. The budget for the first phase (1998-2001) is approximately US\$3.55 million, including US\$866,000 (in-kind and funds) from the Lao government.

A mid-term evaluation of COPE indicated most of its services have been taken up by men with below-the-knee amputations residing in the Vientiane region. Fewer services have reached women and children, and those in remote areas. The board of COPE therefore decided recently to expand the scope of rehabilitation available in Lao PDR, adding occupational therapy, orthopaedic surgery, trauma therapy, and an athletics programme, coupled with an assistance tracking system and, generally, a more proactive approach. The budget for this programme is about US\$5.5 million to March 2004, after which time expatriate assistance to COPE will phase out.²⁷

The MLSW operates about 60 vocational training centres, but few of these have ever taken disabled trainees. An order of nuns from Thailand hopes to establish a vocational training centre for the disabled, and COPE plans to hire an officer to co-ordinate with other vocational centres to better serve the disabled.

Very little of the available assistance is earmarked for UXO victims; rather, it supports services and facilities for disabled people in general.

Approaches to setting priorities for humanitarian demining

Initial phase (1994-97)

Initially, those engaged in humanitarian demining gave clear priority to risk reduction, with broader socio-economic considerations secondary. MAG started work in 1994 with a community awareness programme. When it began clearance activities the following year, it developed a strong focus on "roving clearance" to destroy UXO on the surface and thus reduce this obvious accident risk. HI's *Socio-Economic Survey* also reflected this focus on risk-reduction. This survey captured three main types of community information—history, accidents, level and location of contamination—and ranked communities as follows:

Table 2 - Socio-economic survey ranking of affected communities

Level of contamination	Characteristics
Severe	Recent accident reported
High	UXO in central village or major routes/paths
Moderate	UXO in primary agricultural fields
Low	UXO in grazing land

²⁷ A number of Lao are receiving training abroad, and will return in 2003.