

Originally, attempts were made to develop a single quantitative score for each village by statistical means, but subsequently this was abandoned as each community's classification was, effectively, determined by a single datum (i.e., an accident reported or, where there was no accident, the location of the UXO). Analysis revealed that 40 per cent of reported accidents occurred within villages or along main thoroughfares, and the location of UXO was a good indicator of accident risk, so the "severe" category was dropped. The current classification is based entirely on the reported location of UXO. Districts²⁸ were then categorised using the same simple schema, based on the numbers of UXO affected communities and their rankings. Finally, a provincial priority ranking was established.

In establishing UXO programmes, agreements with implementing partners were made by province. Each partner, together with UXO LAO, would then establish a provincial headquarters with more-or-less distinct operating units in the most severely affected districts. Thus, the district became the principal unit for work planning by provincial operations. However, the decision-order was, first province, then district, and last, task assignments to villages.

The following table and analysis gives some indication of how closely the timing and sizes of the various provincial operations correspond to the *Socio-Economic Survey's* priority rankings

Table 3 - Correlation of provincial mine action operations with socio-economic survey ranking

Province	Priority rankings by:		
	Socio-economic survey	Order of start dates	Size of operations ^a
Savannakhet	1	3	2
Xieng Khouang	2	1	1
Saravane	3	4	3
Khammouane	4	9	9
Sekong	5	6	5
Champassak	6	5	8
Houaphan	7	2	4
Attapeu	8	7	7
Luang Prabang	9	8	5
Correlation with survey ranking		.50	.52

^a Measured by number of Lao staff as of April 2000.

This indicates that the start-up order and current sizes of provincial operations correlate only moderately with the priority rankings set in the survey, and suggests difficulties in negotiating provincial agreements with multiple donors and implementing partners

Once provincial and district operations were established, roving clearance teams were assigned primarily to highly contaminated communities to remove UXO from village centres and major paths. This approach served to reduce risks and would bring significant benefit to social infrastructure (i.e., schools, clinics, *wats*, wells, etc. in

²⁸ Districts are sub-provincial administrative units, headed by a district governor. There are 142 districts

villages) and to some aspects of economic activity – mainly small-scale commerce such as village markets and marketing between communities, and to kitchen gardening. However, it offered little direct benefit to economic production, which for most communities is based on rice production

Integration of priority-setting and work planning (1998 to date)

Given the highly decentralised nature of Lao public administration, and the desire to maintain overall coherence for a programme implemented in conjunction with six international partners, UXO LAO headquarters devised a standard system of annual work planning for all provincial operations, starting in mid-1998. The work planning system has the following features:

1. All activities must correspond to the agreed priorities for UXO LAO and the Trust Fund, namely:

"... programmes shall be carried out for peaceful purposes only and according to the following order of priority:

- a. Humanitarian purposes;
- b. Economic purposes, for the expansion for agriculture and rehabilitation, reconstruction or development projects;"

Further:

*"The Lao PDR Trust Fund may not be used to subsidise the cost of UXO clearance for commercial projects . . . However, UXO LAO may provide services to private natural or corporate persons or institutions and charge for the service. The charges shall not exceed the production costs "*²⁹ (UXO LAO, undated).

For clearance activities, the priorities enunciated for 2000 (UXO LAO, 2000) are:

"Roving clearance:

- Emergency requests – where ongoing work is halted or daily life is affected due to the presence of UXO.
- Areas where people have already found and marked ordnance
- Ordnance on the surface in the village or agricultural land.

Area clearance.

- Land to be cleared for agriculture in high-risk areas, affecting large numbers of people in the poorest villages
- Contaminated land where a community structure such as a school, market, or clinic will be built.
- Land where funded development projects are being delayed by the presence of UXO "

2. Provincial Steering Committees (SC), chaired typically by the vice-governor, have been established, with representatives from key ministries, the UXO LAO provincial co-ordinator, and from all districts in which UXO LAO is operating.
3. Proposals for community awareness, roving, and clearance are solicited by the SC and UXO LAO from each of the districts. These are vetted by the SC for adherence with national priorities and combined with the provincial administration's own priority task list. A detailed work plan is then prepared

²⁹ UXO LAO has just commissioned a study to examine the feasibility of "reimbursable demining"

showing where each community awareness, roving, and clearance team will be working for each week in the coming year. As there never are enough resources to complete all tasks put forward by the district and provincial authorities, cuts to the task list are made through an iterative process.

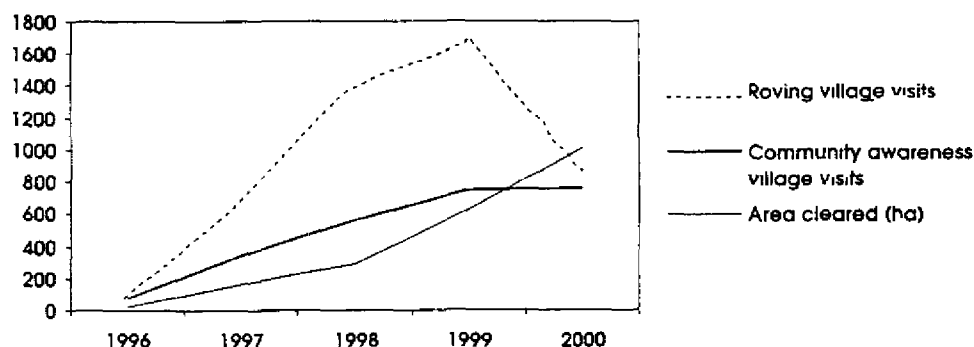
4. The draft work plan is then signed-off by the governor, the UXO LAO provincial co-ordinator, and (regarding technical feasibility) a representative from the implementing partner.
5. The signed work plan is then submitted to UXO LAO national headquarters where it is vetted and approved by the national SC.
6. During the course of plan period, provincial and district personnel have the flexibility to make minor adjustments to the schedule of community awareness and roving teams based on emerging priorities, weather conditions, etc. They also are allowed to alter the schedule of UXO clearance activities without prior approval from national headquarters. However, they are not allowed to add or delete a UXO clearance task from the task list without prior approval from the national level.

Clearly, this process is designed to establish good annual work plans *and* to do so in a very transparent manner. The focus of attention is on clearance activities, which are very expensive in terms of equipment and labour, and which also provide significant economic benefit to agencies or individuals whose land is cleared. This is where strong incentives exist to substitute private interests for national priorities.

The work planning process also represents a useful integration of "top-down" and "bottom-up" planning. District authorities are asked to submit their lists of tasks, which must adhere to national and provincial priorities.³⁰ Requests from districts strongly reflect economic priorities. Clearance of land for expanding rice paddies and irrigation works are most common, followed by clearance for "development projects" (public works, village potable water systems, resettlement schemes, etc.).

The following chart clearly indicates the apparent evolution in priorities. Community awareness and roving clearance team visits to villages are levelling off, while demand

Chart 4: Growth in UXO LAO Activities



³⁰ The latter generally are framed as development priorities; typically a sub-set of the eight national development priorities, listed earlier

for clearance is increasing. In part this is due to the fact that most of the highly contaminated villages have now been visited by community awareness and roving teams, while the clearance task remains immense. While district authorities clearly are happy that community awareness and roving work are under way, all districts want more clearance teams to address land shortages and other economic constraints.

The annual work plan is important as well because it represents the principal accountability framework extant.³¹ To this point in time, UXO LAO has not established a national quality assurance system for field operations or training, and does not have an internal audit unit. It is now completing a manual of standard operating procedures to apply across all provincial operations, which will form a clear basis for management and quality assurance audits.

Only two annual cycles of work planning have been completed. A good start has been made but, understandably, there remains room for improvement. For example, the resulting work plans remain only marginally useful for performance monitoring as the annual targets (hectares of land cleared, amount of ordnance destroyed, etc.) agreed to date have invariably been set low, and are easily attained. As well, UXO LAO headquarters does not have the capacity to provide adequate logistical support (including equipment repairs) to the provincial operations,³² which results in excessive downtime for operational teams and makes it difficult to determine who should be held responsible when there is poor productivity. UXO LAO recently commissioned a study of its logistics operations and hopes to receive assistance from AusAID to implement the recommendations.

Importantly, UXO LAO headquarters is continuing its efforts to enhance its database to provide more "intelligence" for field operations. It updates village records based on monthly or assignment completion reports from the roving, community awareness, and clearance teams, and compiles a range of useful monthly reports tracking operations and progress achieved. It has obtained detailed records on US air combat activities, giving capacity to forecast which areas are likely to be contaminated.³³ It also is seeking to obtain community-level data from recent population and agricultural censuses, which will vastly increase the scope and accuracy of demographic and economic data available for work planning and priority setting.³⁴

Other clearance

In addition to UXO LAO, at least two commercial firms (Milsearch and GERBERA) and the Lao army remain active in mine/UXO clearance, for a variety of clients – provincial authorities, private developers, mineral exploration firms, civil engineers working on hydro-electric projects, and aid contractors building roads, bridges and airports. The latter aid projects are too large for UXO LAO to consider. Often donor

³¹ Common reporting formats, made possible by standardised work plans, were established in January 1999.

³² This difficult task has been further complicated because most equipment has been procured through tied-aid arrangements. Thus, there are too many different makes and models of equipment, which complicates training of mechanics and stores operations. Also, much of the equipment is unsuitable for Lao PDR.

³³ Like IMSMA, UXO LAO's database contains records on communities (treated as "points" in a GIS system) rather than minefields, battle sites, etc. (all treated as "areas").

³⁴ This is feasible because UXO LAO has worked closely with the National Statistical Centre and other government and donor agencies, and a standard GIS system has evolved.

agencies will require the Lao government to assign the army for the expensive job of clearance for road and bridge projects, but the donor or their prime contractor will then hire a firm like Milsearch to do the initial surveys and provide quality assurance and insurance coverage.³⁵

While the study team could obtain only indicative data on current commercial and military clearance activities, our impression is that UXO LAO represents perhaps half the overall clearance capacity in the country.

Costs of mine action³⁶

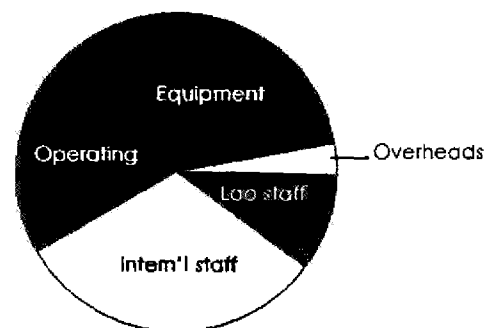
UXO LAO

Total costs

Annual expenditures have grown rapidly from perhaps US\$1 million in 1995, and should peak at a budgeted US\$10.6 million this year. Expenditures are expected to fall to US\$8.3 million by 2002, by which time the reliance on international advisors will reduce and the budget will likely be around US\$6 million.³⁷

Such an expenditure pattern—quickly rising as operations get established and “capacity-building” takes place, then declining as international personnel are withdrawn—is typical when developing new capacity in a developing country. It does, however, create problems for cost analysis. For example, if we want to know how much, on average, it costs to clear a hectare of land, which costs should we consider? Including salaries of international personnel and “set-up” costs to conduct the socio-economic survey and to establish new facilities, management systems, and training programmes would give an inflated picture of costs that will prevail once UXO LAO staff can manage without continuing technical assistance. From the graph below, it is clear that such capacity building and start-up costs have been very significant.

Chart 5: Purpose of Expenditures 1995-99



³⁵ Commercial firms generally carry specialised — and hard to obtain — demining insurance coverage to supplement site insurance carried by the prime contractors

³⁶ While the study team received excellent co-operation from UXO LAO and implementing partners, we could not obtain a complete set of cost data. As well, various agencies report on different time periods, use different expenditure classifications, and value in-kind aid differently. The usual caveats therefore apply (see Hallam, 1996:13-15)

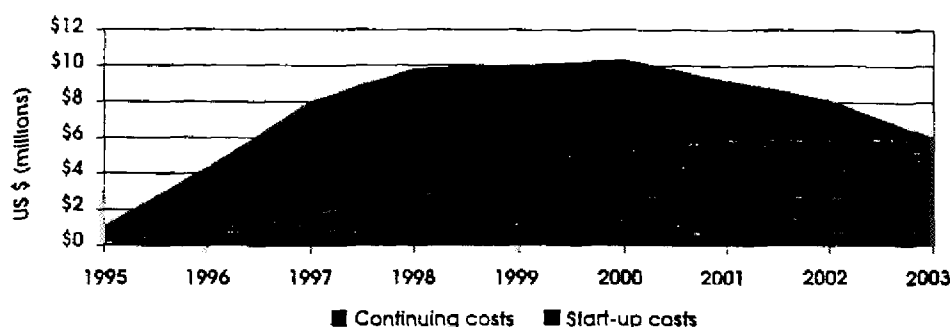
³⁷ At this level, expenditures should be approximately one-third personnel costs, one-third capital equipment (repair and replacement), and one-third all other operating costs. This assumes a stock of capital equipment averaging US\$6 million, with an average economic life of three years.

Start-up and capacity-building

Salaries and benefits for international staff have constituted perhaps one-third of the estimated US\$34 million in expenditures from 1995-99,³⁸ with another 30 per cent going to capital equipment (vehicles, mine detectors, computers, etc.). Salaries and benefits for Lao personnel have accounted for perhaps 10 per cent of total expenditures, while overhead payments to UNDP and the various implementing partners represent at least three per cent. The remainder (approximately one-quarter) covers various operating expenses: fuel, explosives, equipment maintenance, office rental, and so on.

The following graph is an attempt at separating "continuing costs" from various "start-up" costs for UXO LAO. Continuing costs (i.e., those required for UXO LAO to maintain its operations efficiently without continuing technical assistance) are estimated at US\$6 million per annum from 2001, split equally between personnel costs, equipment replacement and repair, and other operating costs. Reasonable estimates of local salaries and benefits are available from the start of operations. Assuming an equal amount for both equipment and other operating costs for each year gives the continuing cost element for past years. All other recorded expenditures are assumed to be start-up costs of various types. The following picture emerges.

Chart 6: Cost Breakdown 1995-2003



While the assumptions used are far too heroic for this picture to be any more than suggestive, start-up costs clearly are very significant, and could represent half the total costs for 1995-2003, and 25 per cent of 2002 costs, after which international personnel are scheduled to withdraw.

The costs of tied aid

A proportion of the equipment purchased or provided under tied-aid arrangements has proven to be unsuitable. This has been particularly true of vehicles. Based on estimated equipment purchases of US\$16.65 million, perhaps US\$3 million (18 per cent) in equipment services were lost to UXO LAO and its implementing partners because of tied aid.³⁹ This figure could be far higher because the unsuitable equipment is often out of use awaiting repair, which limits the mobility or effectiveness of UXO LAO staff.

³⁸ This includes a rough estimate for US Special Forces military personnel who delivered training. However, no breakdown of the very significant training costs is available, so the estimate should be treated with caution.

³⁹ This estimate is based on a simulation model using UXO LAO records for vehicles and depreciation schedules. Basically, unsuitable vehicles depreciate more rapidly, have to be replaced more quickly, are more expensive to maintain, and are unavailable for longer periods because of more frequent breakdowns and waits for spare parts. In UXO LAO's case, preferred vehicles are no more expensive to purchase.

In addition, most of the training has been provided by the US Special Forces, following classic minefield clearance approaches.⁴⁰ Graduates assigned to the provinces have then been given additional training by implementing partners in battlefield clearance techniques, which are more appropriate for UXO clearance.

Unit costs

UXO LAO recently commissioned a "cost-capture study" to develop unit cost estimates (Fisher, 2000). This treated international staff costs and the administrative expenses of implementing partners as start-up costs, and arrived at the following estimates for 1999.

Table 4 - Selected Results of UXO LAO's Cost-Capture Study

Item	Unit cost estimate
One deminer or community awareness staff	US\$6,800 per staff per year
Clearing 1 hectare of land	US\$4,400 per hectare ^a
Cost per village - roving	US\$500 per village
Risk reduction via community awareness	US\$4 per beneficiary

^a The study used a figure of 578.6 hectares cleared in 1999. Subsequent documents from UXO LAO report that 622 hectares were cleared, which would reduce the average cost to under US\$4,100 per hectare.

The study found significant variation across provincial operations. For example, clearance costs per hectare ranged from under US\$4,000 for provinces with long-established operations to more than US\$20,000 for provinces in which clearance had only recently started. This suggests significant productivity increases during the initial years of operations. One would expect average costs to continue falling for some years because of "learning-by-doing". For land clearance, average costs should fall below US\$3,000 per hectare well before 2002.⁴¹

Victim assistance

No estimates are available for victim assistance costs. The relevant programmes serve the disabled in general and expenditures on UXO victims are not reported separately.

Measuring benefits

Qualitative assessments

Until recently, few quantitative assessments were available concerning the benefits accruing from the work of UXO LAO and its implementing partners. The number of

⁴⁰ As well, early community awareness training was based on programmes developed in the US and not fully adapted to Lao conditions.

⁴¹ Very roughly, plans for 2000 indicate a 75 per cent increase in hectares clearance compared to the figure used in the cost-capture report, while local costs will increase perhaps 10-15 per cent in total. This suggests an average cost per hectare in the range of US\$3,000 in 2000. Meanwhile, private clearance firms operating in Lao PDR indicated costs in the range of US\$2,200 per hectare (and up, depending on the local conditions) for UXO clearance.

accidents seems to have fallen from 240 per year (1987-96) to fewer than 200 per year today, but this figure is only a rough estimate based on incomplete reporting. The usual quantitative data are compiled (hectares cleared, ordnance destroyed, people briefed, etc.), but these alone give little information about economic or social impacts. As such, priorities have been set and assessments made based on qualitative indicators of likely benefits. Provincial and district work plans are assessed according to their adherence with national criteria coupled with local priorities and technical feasibility. The expressed satisfaction of provincial and district authorities gives UXO LAO headquarters a rough – albeit important – gauge of the benefits accruing from each provincial operation.

Economic assessment⁴²

Cost-benefit analysis

While formal economic cost-benefit analysis of humanitarian programmes is fraught with controversy, Lao PDR offers an unusually good opportunity to employ this tool, for a number of reasons. Most fundamentally, sufficient time has passed since the war for the economy to have stabilised. Second, Lao PDR remains a simple economy, particularly in remote areas where most of UXO LAO's work takes place. For most Lao, rice remains central to both production and consumption. Third, reasonably good data are available.

The "cost-capture study" commissioned by UXO LAO included a discussion of how benefits accruing from UXO activities might be measured, and generated preliminary estimates for financial/economic benefits. Building largely on that work, the estimated present value of clearing one hectare of "wet season" rice land (our baseline scenario) is about US\$3,540.⁴³ This means that an expenditure today of up to US\$3,540 to clear a hectare of land would be justified on economic grounds alone. Given the average cost of clearing one hectare has been estimated at US\$4,000-4,400 in 1999, and this can reasonably be projected to fall below US\$3,000, future UXO clearance appears justified *on economic grounds alone* in Lao PDR.⁴⁴ The economic case is even stronger for clearance of irrigated rice land, agricultural land for higher-value export crops, and houses, markets and social infrastructure (schools, health clinics, etc.) in villages. Finally, the economic case will strengthen over time as agricultural productivity and rural prosperity grows in Lao PDR.

A number of critical caveats are necessary. First, the economic case for future clearance will depend significantly on the long-term productivity of UXO LAO personnel after the international advisors withdraw. If productivity falls significantly because of weak management and supervision, poor maintenance of equipment, or major cuts to non-wage operating costs without corresponding reductions in staffing levels, then unit costs will rise – perhaps past the point where costs outweigh benefits.

⁴² This section summarises some of the key findings derived in the chapter on socio-economic analysis.

⁴³ The remainder of this section focuses on UXO clearance. It is difficult to estimate economic benefits accruing from risk-reduction activities such as community awareness and roving clearance. As well, the results are *always* fraught with controversy. See Chapter 3: *Socio-Economic Analysis of Mine Action* on economic analysis for some discussion.

⁴⁴ We still can only state that clearance *appears* to be justified on economic rationale. A more definitive conclusion would require an assessment of other possible uses of the resources expended in UXO clearance. It may be that other development activities would provide even higher rates of return than UXO clearance.

Second, the cost estimates do not include start-up and capacity-building expenditures such as salaries and benefits for technical assistance personnel.⁴⁵ Such costs clearly are significant in the case of UXO LAO (as in most humanitarian demining programmes). The economic benefit accruing to such start-up costs must ultimately be based on the net economic benefit associated with continuing operations. Estimates of this type are very sensitive to the assumptions used, but if UXO LAO can continue to reduce unit costs through productivity increases, the programme should generate significant net economic benefits from about 2002, eventually justifying the high start-up costs.⁴⁶

The standard economic case for clearance does not depend as significantly on who benefits – a ton of rice produced would net a wealthy person just as much as it would a poor person, so the monetary measure of the economic activity remains the same. However, a breakdown in the transparency of the annual work planning process, or in the oversight to confirm exactly which land has been cleared, could leave the door ajar for misuse of resources and jeopardise donor support to humanitarian clearance in Lao PDR and perhaps elsewhere.

General observations

Ultimately, the economic benefit of UXO clearance is derived from the economic benefit accruing to the underlying activity or project. For example, if an NGO potable water project promises significant social and economic benefits in terms of time saved, better health, etc., then modest expenditures on UXO clearance to enable its construction will be justified on economic grounds. If land is cleared for agricultural purposes but nothing is grown on it for a year or two,⁴⁷ the economic benefits are greatly reduced.⁴⁸ UXO clearance may make economic or other development activity possible, but it does not guarantee that the activity will take place as planned. As such, co-ordination with other agencies – and with the communities themselves – is important to increase the likelihood that benefits will accrue as planned.

More generally, the future economic benefits realised from any development activity depend significantly on the overall health of the country's economy. This in turn depends on government policies and expenditure patterns, the absence of natural calamities such as drought, and whether households have sufficient confidence to invest to improve agricultural productivity. For example, the baseline scenario for wet-season rice assumes productivity growth (measured in yield per hectare) of 2 per cent per annum.⁴⁹ If productivity does not grow because farmers do not make investments, the present value of future rice production falls by 7.8 per cent to just over US\$3,000.

⁴⁵ For the baseline case, no adjustment has been made for the costs associated with tied-aid equipment purchases and training services. Such an adjustment would strengthen the economic case for UXO clearance, assuming such tied-aid practices will stop eventually.

⁴⁶ See the section on *Evaluating the Entire Clearance Programme* in Chapter 3.

⁴⁷ Such delays could occur for many reasons, including: the land is not allocated to a farm household, critical inputs (e.g., credit to buy bullocks, seed) are not available at the right time, the government does not complete planned resettlement in time, too much food aid is delivered, depressing local food prices and making it unattractive to plant rice.

⁴⁸ Using the example of wet season rice, delay of one year reduces the present value of benefits by over 10 per cent, to about US\$3,155.

⁴⁹ This was the average for 1985-1997. In India during the Green Revolution, productivity in yield per hectare grew by 2.4 per cent per year for an extended period.

Cost-effectiveness analysis of risk-reduction measures⁵⁰

Formal cost-benefit analysis is not particularly illuminating for assessing the benefits accruing from risk-reduction measures instituted in poor countries. It is difficult to place a financial value on human life, and many people find even the concept distasteful. Still, it is incumbent on all those entrusted with scarce aid resources to understand the relationship between costs and performance, even when the benefits of good performance cannot be reduced to monetary values. Cost-effectiveness analysis can be a useful tool in such situations. For example, one can compare the average cost of saving one life through a mine/UXO programme and compare this to the cost of saving one life through, say, malaria control or training programmes for traditional birth attendants. This does not require a monetary sum to be given for the value of a life; only an assumption that a life saved through malaria control is equally precious as a life saved through mine action.

Unfortunately, we have no accurate count of the number of lives saved and injuries avoided in Lao PDR due to UXO awareness activities, roving clearance, etc. However, even very rough calculations demonstrate that UXO/mine awareness and roving clearance are relatively expensive in terms of lives saved and injuries avoided relative to various other public health and safety programmes in Lao PDR. Deaths from UXO accidents seem to have averaged 240 per year in the decade before the *Socio-Economic Survey*, and may be averaging fewer than 200 per year since 1997. Assuming half the accidents are fatal, then there are 40-50 fewer deaths per year from UXO accidents, with a similar reduction in injuries. The cost-capture study estimated the costs of community awareness activities at about US\$700,000 in 1999, with roving clearance accounting for another US\$860,000. Even with the implausible assumption that all accident reduction has been due to community awareness and roving, the cost per death/injury avoided is over US\$15,000. Meanwhile, public expenditure on health amounts to only US\$5 per year per person, and there are 1.4 million cases and 14,000 deaths each year from malaria, which can be combated through inexpensive insecticide-treated bed-nets.

Environment

Reduction of slash-and-burn agricultural practices is one of the government's eight development priorities. It aims at reducing ecological degradation caused by deforestation, particularly in the mountainous north and east where level land for paddy rice cultivation is at a premium. UXO clearance can assist by opening new land for rice paddies, and by clearance for irrigation to allow more intensive cultivation. As with economic benefits, environmental outcomes will depend of the timeliness and quality of other development services available to the households settling on the cleared land. If agricultural extension services and critical inputs (seeds, credit) are not provided, it is unlikely that swidden farmers will be able to make the transition to paddy rice cultivation, and they will return by necessity to their former practices.

Food security

More than half the Lao population suffer from episodic or chronic malnutrition. Access to sufficient land is one of the major constraints cited by Lao households to improved well-being, as is water control. Obviously, UXO clearance can alleviate some of this

⁵⁰ See Chapter 3 above and Hallam (1998) for further treatment of this topic.

poverty by making more land available and by clearing irrigation systems. Given many Lao live outside the monetary economy, direct calculations of food security benefits are a useful supplement to other forms of economic analysis. On average in Lao PDR today, one hectare of flatland paddy can meet the rice requirements of just over eight people.⁵¹ UXO LAO will clear over 500 hectares of agricultural land this year, which in turn will provide sufficient food, year-after-year, for about 3,500 people.

Existing integration with development work

Local and micro levels

Through its work planning process, UXO LAO operations are becoming better integrated at the district and micro (community, NGO, etc.) levels. Increasingly, government agencies, NGOs, and managers of major aid projects are seeking assistance from UXO LAO. Recent examples include requests for clearance from:

- International NGOs such as Oxfam and Action contre la Faim for community development projects they are supporting;
- ACF for small scale gravity-feed potable water systems, which they are installing as sub-contractors on the large Bolovens Plateau Rural Development Project, financed by the French aid programme;
- The Mountainous Zone Development Project,⁵² which is building the first large "focal site" for resettlement of up to 5,000 people (some threatened by a new hydro-electric dam; others to reduce slash-and-burn) at Pa-am in Attapeu Province.

At least the last of these requests comes close to encroaching on the unwritten understanding that UXO LAO would not assist large-scale development projects because of capacity constraints. Is there really a difference between assisting a government agency building a new town, with the requisite infrastructure, and assisting a donor-financed project constructing farm access roads on behalf of the government?

National and provincial levels

UXO LAO's work programme also ties in closely with a number of the national development priorities, as well as those in most provinces. However, there rarely is any mention of the UXO problem or of UXO LAO in macro-economic and national development documents.⁵³ This seems a curious omission given the scale of UXO contamination and the significant donor resources allocated to the problem.⁵⁴

Two possible explanations come to mind. First, UXO contamination may not be perceived as a priority to government officials – after all, Lao PDR is extremely poor

⁵¹ In countries receiving food aid, this figure can readily be converted into monetary terms by using the per person cost of purchasing, shipping, and distributing food aid.

⁵² The MZDP is a new para-statal responsible for rural development in two mountainous districts of Attapeu. It is financed "off-budget" by a concession to cut 30,000m³ of timber, expected to raise 40 billion kip (about US\$5 million).

⁵³ While the study teams were unable to obtain provincial development plans, we understand that few of these mention UXO.

⁵⁴ Donor-financed expenditures by UXO LAO and its implementing partners represented about 6.5 per cent of total aid grants recorded by the government in 1997-98. There may be some under-reporting of grant aid by the government because of in-kind donations and funding through international NGOs.

and faces many economic and social hurdles. Second, the country has lived with UXO for 25 years without having the capacity to deal with the contamination. It may be recognised as a significant problem, but in a similar way as the weather, and one doesn't expect the government to change the weather. If the latter hypothesis is correct, we would expect greater attention to be given to ordnance contamination as the UXO programme gains experience and profile.

The latter hypothesis is plausible. The National Assembly passed the current national development in 1996, before many would be aware that UXO clearance on a significant scale might be feasible. UXO LAO's work planning process, which actively solicits priorities from district and community levels, has only been through two annual cycles. Indications are that demand for more and faster clearance is growing significantly. Senior officials from provincial administrations and the State Planning Committee informed the study team that they were aware of far greater demands for UXO clearance.³⁵ If so, we would expect greater mention of the UXO issue in future development plans published by the national and provincial governments.

Some evidence consistent with this hypothesis is available. The Lao Expenditure and Consumption Survey 1997/98 did include a question of whether mine/UXO contamination was the *main* constraint on raising household incomes (Government of Lao PDR, 1999a: 36, Table 32). The responses by province were:

Province	% citing mines/bombs as major problem faced
Xieng Khouang	9%
Savannakhet	3%
Khammuane	2%
Saravane	1%
Sekong	1%
Borikhamxay	1%
All others	No statistically significant response

Xieng Khouang and Savannakhet were the first and third provinces, respectively, in which UXO clearance started, and rank first and second in size of current operations. The high percentages citing mines/bombs as their most significant problem might reflect greater awareness among the populace and officials that something can be done to address the problem, as well as the high level of contamination *per se*.

This scant evidence is far from persuasive, however, and it remains unclear whether UXO clearance will be acknowledged as a national priority. It also is premature to assume increased demands by provincial and local governments for UXO LAO's services mean that UXO clearance is a top priority except in localised situations. From the perspective of village, district, and provincial administrations, UXO LAO is providing "free resources" – officials are not paying for the services either directly from their budgets or indirectly by having to choose between UXO clearance and some other service available via the national government or donor community. Because they do not have to give up anything in exchange for more UXO resources, rational officials will always ask for more UXO resources for their communities.

³⁵ Of course, they may only have been being polite

Conclusions

UXO LAO is very much a story still being written. Still, there seems to be consensus among those involved in UXO work on the following critical issues

- National capacity must be developed to deal with a problem that will endure for many decades,
- In this context, the proper role for implementing partners is capacity building rather than direct management of UXO operations;
- The annual work planning process should continue, and additional measures should be put in place to establish national standards and strengthen national oversight over provincial operations;
- Resources should shift toward clearance activities while seeking more cost-effective means for reducing the risks posed by UXO.⁵⁶

In addition, the analysis done by UXO LAO and the study team indicates that well-targeted clearance activities are likely to be justified on economic grounds alone, and this case will get stronger over time if UXO LAO can continue to raise clearance productivity and as agricultural productivity in Lao PDR increases.

A number of critical issues and questions remain unresolved, including:

- *What is the true priority of UXO clearance vis-à-vis other development activities?*
If donors provide funding for mine/UXO channels via special channels, Lao authorities will not see any trade-off between aid for UXO and aid for other development purposes. The same logic applies throughout the decision-making chain: provincial governments, district authorities, village chiefs. Observers are unlikely to get a clear gauge of the relative priority of UXO contamination until decision-makers must choose between allocating resources for UXO or for other purposes.⁵⁷
- *When should implementing partners end their UXO activities?*
Current plans call for a measurable phase-out after 2002. Although clear timetables have yet to be established, UXO LAO hopes to shift international support from individual provincial operations to regional centres (i.e., covering multiple provinces). It expects the presence of international advisors in both technical and management capacities for another five years.
- *Will UXO LAO be able to maintain efficient cost control and high productivity once international staff depart?*
The Lao government has made some important cost-control decisions, including halting the increase in UXO LAO operations and reducing staff salaries by more than 20 per cent. UXO LAO itself has instituted or plans a number of valuable initiatives, including the cost-capture study and the review of its logistics management. These augur well for cost control. Productivity or performance management is, however, a more challenging task for managers and supervisors, particularly in countries where social norms do not reinforce competitive behaviour.^{58,59}

⁵⁶ An evaluation of the community awareness programme has been commissioned by UNICEF.

⁵⁷ In economic jargon, until they "internalise" the trade-offs.

⁵⁸ The study team was informed there is a common Lao saying to the effect that: "It is the nail sticking up that gets hammered down."

⁵⁹ This is not meant to extol competitive behaviour; rather, to point out that social norms which reinforce such behaviour greatly simplify supervision and management.

- *Can UXO LAO establish the requisite monitoring and evaluation capacity to ensure standards are maintained across provincial operations?*

The annual work planning process forms a simple and useful framework for UXO LAO provincial co-ordinators and implementing partners to give an accounting for the resources entrusted to them. This can be improved by further development of unit cost analysis. Such accountability structures create powerful incentives for reports to reflect good performance, but these may have perverse effects (e.g., false reporting) unless systems exist to ensure the information reported is both accurate and standardised across all operations.

- *If UXO LAO continues to demonstrate its ability to manage funds in an effective and transparent manner, will major donors agree to shift funding from their own NGOs and firms to the Trust Fund?*

Channelling funds via intermediary organisations adds greatly to costs. Some of the high costs for international salaries etc. are warranted for start-up and capacity building purposes; others, such as tying funds to the purchase of unsuitable equipment and services, are simply wasted. While a good case can be made for the burden of proof to be on UXO LAO to demonstrate its performance and probity, at some point donors need to acknowledge that their NGOs and firms have, in fact, helped build the requisite local capacities.

- *Will donor assistance be maintained at significant levels after most international personnel depart?*

Most donors recognise there is an international obligation to assist Lao PDR in dealing with a massive UXO problem not of its own making. Understandably, donors are also concerned that Lao PDR has not yet adhered to the Ottawa Treaty. If the Lao government does not adhere in the coming years, will the former outweigh the latter?

- *If donor assistance declines, will the Lao government maintain the UXO LAO programme?*

It seems hard to believe the government will abandon its programme completely, given that (1) UXO contamination clearly is a major problem in some areas, (2) UXO clearance is in great demand, and (3) well-targeted clearance appears justified in economic, environmental, and food security terms. However, a significant danger is that, with the many and massive budgetary demands in the country, the programme will be starved of funds, particularly for equipment and supplies. This would quickly sap its effectiveness.