

Perspectives from Lao PDR: Scrap metal, economics & risk

Presentation by

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Ladies and Gentlemen,

Back in 2004 and 2005, I worked on two different projects in Cambodia and in Lao PDR examining ordnance handling behaviour –

- why do so many unexploded ordnance accidents, including accidents from unexploded submunitions, result from people deliberately engaging with these items?
- Is it because people are unaware of the risks or are there other forces driving them?

And my work on this came to look in particular at the scrap metal trade – as a major economic force behind many of these accidents.

In this short talk I would just like to highlight some of the key elements of this phenomena.

The point I really want to bring out with this short presentation is that, where ordnance contamination is so extensive, post-conflict clearance and education projects can end up being limited in the face of economics.

This is not to say that post-conflict clearance and education projects are not worthwhile – but it is to argue that post-conflict remedial measures cannot be relied upon to solve problems. In some contexts they can only mitigate the problem.

And I think this serves to highlight the need for prohibition. Prevention is more effective than the cure.

Slide: Casualties

Funded by the Australian Government and the European Community Humanitarian Office, I was contracted in 2004 to undertake, with a Cambodian research team, an analysis of ordnance handling behaviour in rural communities of Cambodia. This was prompted by a sense that ordnance casualties were not declining despite the best efforts of the mine action sector. In fact, casualties from deliberate handling of unexploded ordnance – often called tampering – seemed to be rising in some places.

In Lao PDR during this same period there were also rises reported in UXO accidents. In 2005, I conducted a research project for UNICEF and the Geneva International Centre for Humanitarian Demining to look specifically at the role of the scrap metal trade in relation to these rising accidents.

This slide combines casualties in Lao and Cambodia and gives a sense of that rise in casualties – despite ongoing clearance and risk education work.

Slide: Scrap metal prices

The rise in casualties coincided with a rise in scrap metal prices.

The rising price of scrap metal in rural areas was increasing the number of people that engaged in scrap metal collection.

And these rising prices at a local level were linked to rising scrap metal prices globally. We can see the broad similarity of the trend in the graph here – which compares European scrap price with prices with prices reported by Lao villagers.

Slide: war remnants

These photographs are by Sean Sutton from Mines Advisory Group who I worked with on some of these issues back in 1998.

And these illustrate a very important point. The effective saturation of many parts of Lao with all sorts of metal war remnants.

Many of you will have seen images of cluster munition casings being used as the stilts of rice stores – they are particularly effective for this because vermin, rats, cant climb up their smooth sides. But here we see un-fuzed ordnance remnants being used to weigh down roofing thatch, boats made out of fighter bomber drop-fuel tanks and a paraffin lamp fashioned out of an unexploded submunition.

War scrap, not just UXO or unexploded submunitions, is widespread in many parts of Lao.

Slide: village blacksmith

And in local villages, blacksmiths have for many years fashioned tools and other implements out of this scrap for local sale and use. This blacksmith is fashioning machetes and agricultural tools, using war scrap as the raw material – and also here using an artillery projectile as the anvil.

So the use of scrap metal is not new – and it is also not new that accidents have been linked to the scrap metal trade.

In an analysis undertaken in 1996 of accidents in the central Xieng Khouang Province of Lao, Seb Taylor noted a peak in casualty rates in the mid 1980s which was attributed to a previous high point of the scrap metal trade, which then declined in the 10 years from 85 to the late 1990s.

Since then though the scrap metal trade has seen a resurgence on the back of rising demand

Slide: Industrialisation – pile of ordnance

And quite different from the practice of local smiths we see large scrap metal yards and in Lao an expansion of mini-mill smelting works.

Here we have a large quantity of cluster munition containers, as well as remnants of large aircraft bombs. This is actually in Vietnam but on the Lao border, and with much of the material having been collected in Lao.

Slide: jumble of live etc

Here in Lao we see all sorts of scrap. Some of it military in origin, some of it from vehicles and construction. Mixed in with it in this shot there are live ordnance fuzes amongst other things.

Slide: rebar production

This is the same location, and here they are processing the scrap into reinforcing bar for use in the construction industry.

Slide: rebar price

And part of the economic strength of the Lao scrap metal economy is that access to the basic resource (scrap metal), coupled with local processing, allows production of the finished product well below the international market price – here comparing the price of Lao rebar with Chinese reinforcing bar at the time.

Slide: submunitions amongst scrap

This economy comes at a cost. I have marked 4 unexploded submunitions in this location – one of the buildings here had a corrugated iron roof that was punctured with fragmentation holes from where at least one detonation had occurred.

Slide: villagers

But it is really at the rural level that the great majority of the accidents happen, amongst the populations that are out looking for metal.

In these slides we see a family with a metal detector, returning from collecting scrap.

And a young man who has modified these detectors in order to be able to search from scrap metal underwater.

Children very often collect and sell scrap metal to provide income for small luxuries (sweets and the like) or even for school materials and clothes.

If there is no scrap metal yard in the village it is likely that a trader with truck or handcart will pass through – probably once every day, purchasing the metal that has been collected.

And this is another very important element of the economic strength of the trade. It is a way of getting cash (in an environment where the local cash economy is generally expanding) - and it is a way of getting access to cash on an almost daily basis.

Slide: risks

I just wanted to highlight here some of the specific risk activities. For people using detectors to find scrap metal under the ground there is a risk of striking and unexploded item of ordnance. And unexploded submunitions are a particular risk in this respect because of the nature of the fuzing mechanism on many of the models used here. There is also a risk when people do find items of ordnance that they try to remove fuzes or burn out explosive content. Scrap metal traders generally do not want to purchase live ordnance (understandably) and so it is often the poorest people involved in the trade that will take the risk of trying to make a live item saleable.

If we look at the accident report forms that relate to cluster munitions and scrap metal we get a sense of some of the interactions taking place:

- Ages 15 & 14 - Looking for scrap metal, found a BLU 26 and tried to open it.
- Age 13 - Finding scrap metal with a detector. Hit a BLU 26 when digging.
- Age 14 - Used a detector to find scrap metal. Found a BLU 61, and hit it to get soil off.
- Ages 19, 20 & 30 - Trying to clean a BLU 83. Probably scrap metal related but not mentioned on form.
- Age 19 - Looking for scrap metal but not using a detector. Hit a bombie with a knife.
- Ages 30 & 12 - Father and son looking for scrap metal. Hit a BLU 26 when digging.
- Age 12 - Went to find scrap metal with 13 other people. They split up in the forest, he dug up a BLU 24 and then hit it with his *saem*.
- Ages 11 & 12 They were looking for scrap metal. Found a BLU 26 and hit it on a stone.

Slide: conclusions

So to conclude. We see economic forces are capable of increasing risk taking behaviour, despite all of the hard work we have seen going on in Lao to address this contamination.

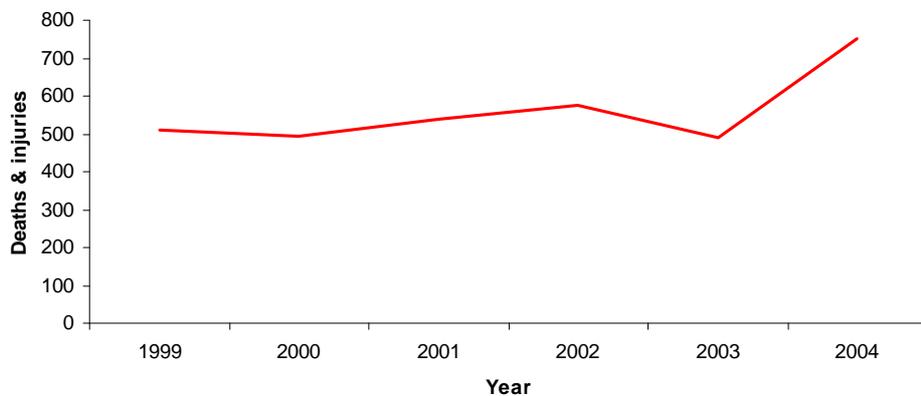
Unexploded submunitions present particular risks – partly because they are so widespread and found in such high numbers, but also because of their design characteristics – their small size and internal fuzing.

And if we cannot solve this problem with the tools of post-conflict assistance but can only do our best to limit it through the ongoing work of the NRA and its partners, wouldn't it be better to prevent such contamination in the first place?

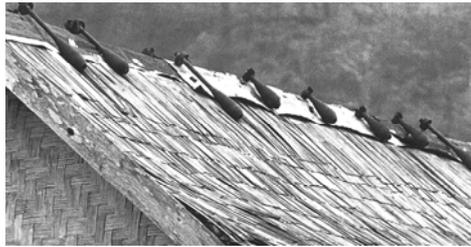
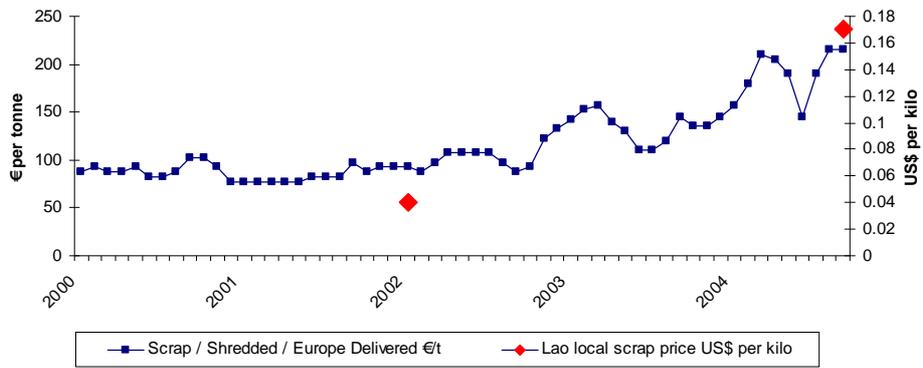
Scrap metal, economics and risk

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Combined Lao PDR and Cambodia UXO casualties 1999 - 2004



Comparison of international and local scrap price increase 2000-2005



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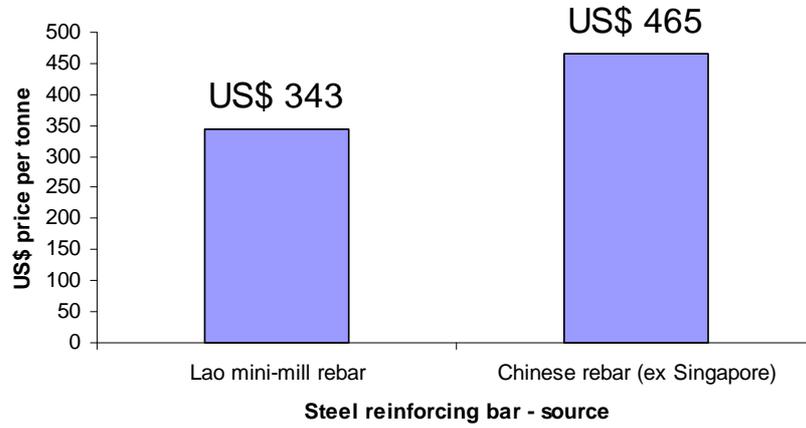
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Comparison of domestic production vs import price of steel reinforcing bar - 2005



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Conclusions

- Social and economic forces very powerful influences on risk taking behaviour;
- Submunitions one of the major sources of the risk (related to their prevalence and to their physical characteristics);
- Post-conflict remedial measures are limited in response - cannot solve the problem, can only try to limit it.