The Dismal Science Meets a Global Atrocity

Intersessional Meetings

Geneva - 8 May 2001
Ted Paterson

How does an economist approach mine action?

That’s fine in reality, but will it work in theory?
Objectives

- Present the 'Stylized Facts' of a mine clearance programme - What we think we know.
- Lessons (being) learned
- Review the 'Harris Fallacy'

Depicting Benefits of Mine Clearance

![Graph showing the relationship between percentage of contaminated land and benefit per hectare.]
Costs of Mine Clearance in a Country

Basic Graph 1 (Unit Costs & Benefits)
Effect of Higher Clearance Costs

Present values (US $000s/ha)

<table>
<thead>
<tr>
<th>Percentage of contaminated land (in priority order)</th>
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</thead>
<tbody>
<tr>
<td>$0</td>
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<td>$40</td>
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Benefit
Cost
Cost +20%

Poor Targeting of Clearance

Present values (US $000s/ha)

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Benefit
Cost
Benefit-2
Effects of Faster Economic Growth

Displaying multiplication on the graph...
Basic Graph 2: Depicting Total & Net Costs & Benefits

Introducing Realism

- Can’t value each parcel of land, so...
- Do case studies
Some Preliminary Findings

- MAPA in Afghanistan now yields very high economic benefits (c. $40 million in 1999)
- UXO LAO on the verge of shifting from net cost to net benefit.
- General clearance of agricultural land in Mozambique is not cost-effective, but more targeted clearance is, for example...
  - Clearance of village water points to free women's time for tending crops

Some Other Lessons

- Mine clearance can be evaluated using cost-benefit approaches.
- The difference between good and poor targeting of clearance is very significant
- The cost effectiveness of mine awareness is extremely difficult to assess
- Cost/managerial accounting is weak in most mine action organisations (or not shared with evaluators)
The Harris Studies

- Article on Mozambique to be published.

The Harris Fallacy

- For Cambodia, calculated net cost of minus $3,434 million!!!! Some errors...
- Discounted future benefits but not future costs
  - total (undiscounted) costs of $140 million/year for 25 years = $3,500 million
  - discounted (at 10%) costs under $1,400 million
Discounting Future Benefits but Not Costs
Assume Benefits & Costs of $3,000,000 each Year

The Harris Fallacy - 2
- Overstated the size of the programme
  - $140 million/yr rather than <$20 million/yr
  - Modeled clearance of all contaminated land, rather than targeted clearance.
Costs & Benefits of Clearance over Time

Present values (US $000s/ha)

Benefit
Cost

Year of Programme

The Harris Fallacy - 3

- Understated benefits
  - Uses wrong figure for net value of agricultural production.
  - Strategy is to clear high value land first.
  - Didn’t consider future economic growth, which raises future benefits.
The End