Panel 2: Economic Evaluation of Agricultural Research – Can it be Disaggregated?

*Experience of the International Potato Center*

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ERS/ARS Workshop ‘Assessing the Benefits of ARS R&D within an Economic Framework’,  
March 10–11, 2008, Washington, DC.
1. Define “projects”
   all scientific components necessary to address a productivity constraint (multidisciplinary)

2. Ex ante analysis of research portfolio
   based on scientists’ judgments of likely research outcomes plus economic models

3. Ex post case studies (selective)
   Success stories
Outcomes and influence of process

- **1st round of ex ante assessment (1995-1996)** identified priorities for crop improvement

### Major global priorities

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<thead>
<tr>
<th>Potato</th>
<th>Sweetpotato</th>
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<tr>
<td>Late blight</td>
<td>Viruses</td>
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<td>Viruses</td>
<td>Low dry matter yield</td>
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<td>Bacterial wilt</td>
<td>Insect pests</td>
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<td>Insect pests</td>
<td>Germplasm conservation</td>
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<td>Rapid seed multiplication</td>
<td>Small-scale processing</td>
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<td>Ambient storage</td>
<td>New product development</td>
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<td>Natural resource management in mountain production systems</td>
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### Minor/local priorities

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<th>Nematodes</th>
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<td>Abiotic stresses</td>
<td>Bacterial &amp; fungal disease</td>
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Ex post analysis: aggregate impact from success stories justified donor investment in Center.

Millions of US$ per year (1996 prices)
Re-evaluation of under-performing projects (low adoption)
- True Potato Seed: high cost & narrow environmental adaptability
- Ambient potato storage: high fixed cost
- Sweetpotato processing & product development: high raw material cost & low market adaptability

Devolution (eventually)
2\textsuperscript{st} round of ex ante assessment (2005-2006)
- Reassessment of old and new constraints
- Expanded methodology to emphasize potential impact on poverty alleviation

Imbalances in Center research portfolio
- Dilution of research agenda
- Under-investment in sweetpotato
- Over-emphasis on Andes region

Reduced flexibility to realign program
- Declining real resources
- Donor-driven restricted funding disconnected from beneficiary needs