Natural Resource Management: the economic perspective

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'Responsible Management of Natural Resources in Latin America and the Caribbean' by

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Natural resources – natural capital

- Places natural resources in recognisable economic framework on an equal basis with other factors of production BUT
- Natural resources are of different kinds
  - Abiotic: fossil fuels, metals, minerals
  - Biotic: soil, plants, trees, animals, fish, ecosystems, biodiversity
  - Water
  - Land
- Their characteristic is that they produce (ecosystem) goods and services: source, sink, human health and welfare (e.g. tourism), life support
- Properly managed they are a source of wealth and development
- Badly managed they can retard development (the 'resource curse')
- What is the difference?
  - Sustainable management
  - Governance for national benefit from the proceeds

Capital and sustainability

- In the provision of goods and services, capital depreciates; for sustainability it must be replenished (investment); 'sustainable income' (Hicks) is the income generated once capital depreciation has been accounted for
  - Renewable resources: ensure that they are renewed
  - Non-renewable resources: make investments in physical, human and social capital (World Bank Adjusted Net Savings)
- Economic, social, environmental sustainability
- Weak and strong sustainability (substitutability between capitals)
- Potential for unsustainable development lies in loss of one or more capital stocks, or in trade-offs made between different forms of capital, and extent to which
  - Any decline represents a breach of some ***critical threshold*** (breach of which threatens system integrity), and if not, whether
  - Any decline in one form is compensated by increases in other forms

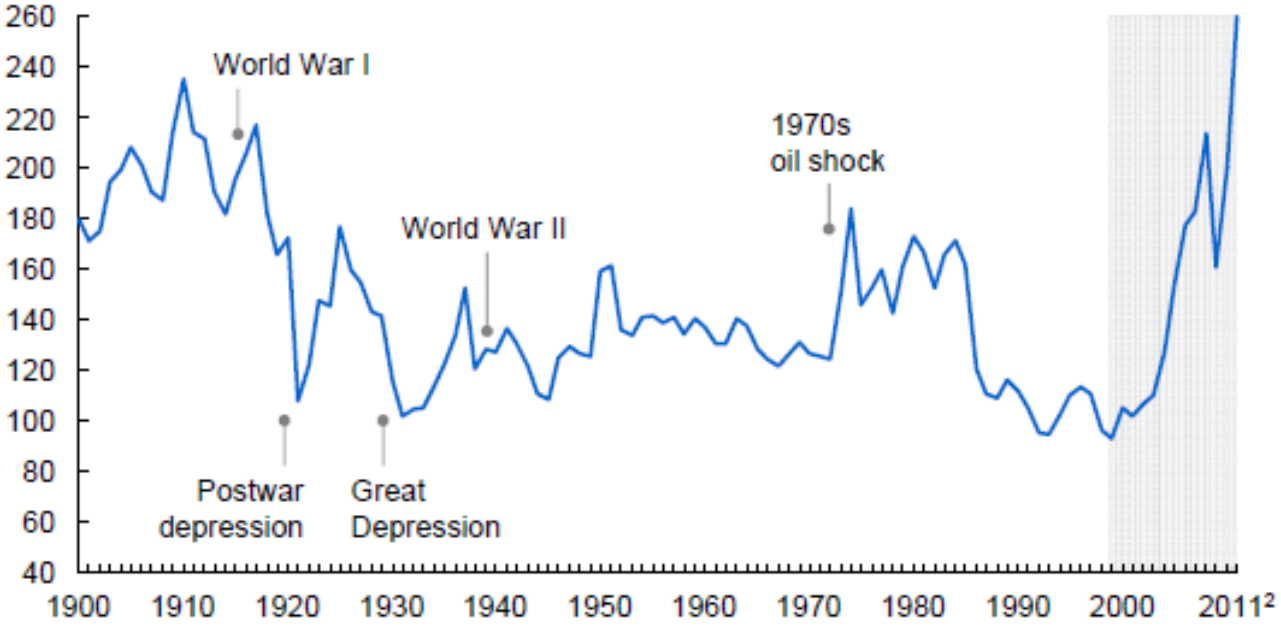
Commodity prices: the opportunity for resource-rich Chile

Source: McKinsey Global Institute 2011 *Resource Revolution*

Exhibit E1

Commodity prices have increased sharply since 2000, erasing all the declines of the 20th century

MGI Commodity Price Index (years 1999–2001 = 100)[1]



1 See the methodology appendix for details of the MGI Commodity Price Index.
2 2011 prices are based on average of the first eight months of 2011.
SOURCE: Grilli and Yang; Stephan Pfaffenzeller; World Bank; International Monetary Fund (IMF); Organisation for Economic Co-operation and Development (OECD); UN Food and Agriculture Organization (FAO); UN Comtrade; McKinsey analysis

Natural resource management

- Management for resource sustainability
- Management and re-investment of the revenues (e.g. sovereign wealth fund)
- Management for resource efficiency
  - Management of the environmental impacts of extraction
  - Management for efficient resource use
- Management for equitable development (sharing the benefits with workers and communities)

Policies for natural resource management

- Resource taxes to capture rents
- Place proceeds in sovereign wealth funds for re-investment
  - Importance of transparency, accountability and good governance
- Investment in:
  - Renewable energy, waste management, clean air/water, sanitation, clean tech
  - Education, training, skills development
  - Public health
- GDP = C + I + G + (X-M)
- Natural resources provide the opportunity to grow the economy sustainably (economic, social, environmental) by increasing private investment (I), public investment (G), and exports (X)

Thank you

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