

# **International Conference at the Bibliotheca Alexandrina** **Evaluating Climate Change and Development**

## **Climate Change, Development and Evaluation**

*Robert Picciotto*

# **Global warming is an existential threat.**

- **While it is not the only development problem, it is emblematic of all the others.**
- **If humanity can tackle it, it can also overcome the others by:**
  - **adopting human security as the new development consensus;**
  - **broadening and deepening the poverty reduction compact between rich and poor countries; and**
  - **putting evaluation to work.**

# Fortunately, climate change denial is behind us..

- **The scientific consensus is that man-made factors are the main cause of the temperature rise of 0.7 degree since 1900 because of energy intensive development.**
- **The ten warmest years on record were experienced since 1990; sea levels are up; rainfall patterns are more variable; glaciers are melting ;etc.**
- **Stabilizing emissions at today's levels would raise greenhouse gas levels further and the temperature of the planet would increase by 2-5 degrees or more – well beyond the realm of human experience**

# **...but the linkages between climate change and development are poorly understood.**

- **Unsustainable development patterns are raising the sensitivity of nature to climate change.**
- **As a result, catastrophic outcomes cannot be ruled out:**
  - **More rapid destruction of tropical forests.**
  - **Accelerated species extinction.**
  - **Biodiversity hotspots threatened.**
  - **Mollusks, plankton, mangroves, coral reefs and fish stocks in jeopardy.**
  - **Ice sheets melting and/or collapsing.**
  - **Flooding and uncontrolled rise of sea levels.**

# Climate change is a key development challenge

- **There will be winners and losers. In Europe and North America cold related deaths will decrease and crop yields will initially improve but more flooding will occur and new infrastructure will be required.**
- **The net effect on poor countries will be seriously damaging given their location, their reliance on agriculture and fisheries, their limited access to capital and their weak institutions.**
- **Dry season water will become scarcer in the Indian subcontinent, China, and South America.**
- **Crop yields will decline, especially in Africa and malnutrition will spread with deleterious health consequences.**

# The global response so far has been feeble and symbolic.

- While the 1997 Kyoto Protocol was endorsed by 165 countries, it excludes developing countries and it was rejected by the United States (which accounts for 21% of emissions)
- Overall compliance has been spotty: Austria, Belgium, Canada, Denmark, Ireland, Italy, Portugal and Spain are off track to meet the agreed targets.
- Even if fully implemented it would shave a meager 7% of the increment in average atmospheric temperatures: a temperature increase of 2.42 degrees instead of 2.6 degrees by the end of the century.
- But neither has a robust and meaningful response been forthcoming with respect to other urgent development priorities

# **This reflects an unfair and insecure development model.**

- **The market driven development paradigm is grounded in the illusory notion that the capacity of nature to absorb waste is infinite**
- **Income inequalities are high and rising.**
- **The number of poor people living on less than one dollar a day is well over 1 billion and has gone up instead of down (outside China).**
- **Millions of lives are being lost to violent conflict and to preventable disease**
- **Nearly one in six species of European mammals is threatened with extinction**
- **All currently fished marine species could collapse by 2050**
- **The Arctic Ocean could be ice free during the summer by 2020.**

# Climate change is only one among many mega-threats...

- **Hunger**
- **Disease**
- **Natural Disasters**
- **Violence**
- **State fragility**
- **Economic volatility**



# ...but it is emblematic of the contemporary development enterprise

- **Nick Stern: global warming is “*the greatest and widest-ranging market failure ever seen*”.**
- **But in an increasingly interconnected world, all mega-problems are “without passport”.**
- **On its own, the market cannot solve these problems because of free riding and distorted incentives.**

# **A new development compact is urgently needed...**

- **The Monterrey agreement is asymmetrical.**
- **MDG8 is weak and imprecise.**
- **Aid urgently needs reform.**
- **Trade is not a level playing field.**
- **Agricultural subsidies hurt the poorest.**
- **Intellectual property standards mostly help the rich.**
- **Migration rules are discriminatory.**

# ... it is called human security.

- **Albert Einstein: “*we cannot solve problems by using the same kind of thinking we used when we created them*”**
- **The advent of human security:**
  - UNDP/Japan
  - Canada
  - Kofi Annan

# Why human security?

- **Human security favors quality growth over rapid, inequitable, unsustainable growth.**
- **It addresses downside risks that affect the poor.**
- **It emphasizes policy coherence and risk management.**
- **It sets priorities based on probability weighted cost benefit-assessments.**
- **It concentrates on capabilities, resilience and adaptation.**
- **It involves assessment, prevention, mitigation, coping and adaptation.**
- **It delivers results through combined efforts of governments, the private sector and the civil society.**
- **It eschews fear based, populist decision making and favors democratic debate.**

# Because it can master development risks, including climate change...

- **Taxation**
- **Advocacy of new behaviors**
- **Promotion of new production and consumption patterns**
- **Technology and innovation**
- **Research on alternatives**
- **Use of market mechanisms and coherent global action**

# **.. through global action backed by market mechanisms...**

- **Set a global target level of emissions at a level beyond which the costs of adjustment exceed the benefits**
- **Aggregate costs and benefits to set the social price of a unit of carbon**
- **Agree on an aggregate cap on emissions combined with users' allowances**
- **Create a capacity to trade these allowances**
- **To the extent that mitigation fails to achieve desirable temperature reductions formulate and implement adaptation programs**

# ...as well as reform of policies...

- **Global cooperation is critical both to secure the massive cross border transfers of oil and gas required by an interdependent energy system and to tackle global warming**
- **Cheap energy can no longer be the foundation of policy given the need to:**
  - **Contain energy consumption**
  - **Invest in major infrastructure to generate and distribute the fossil fuels (85 percent of global energy supplies).**
  - **Accelerate the transition away from a carbon based economy through promotion of alternative sources of energy**

# ... and a global agreement to clean up the mess.

- **Industrialized countries bear major responsibility for the risks associated with global warming:**
  - Home to 20% of the world's population, they account for 63% of carbon dioxide accumulated in the atmosphere since 1900.
  - They dominate global environmental management through their heavy ecological footprint and their influence over global regimes.
- **By the end of the century developing countries will contribute 75% of global emissions.**
- **Influential nations should take the lead:**
  - The European Union is already on board.
  - The United States and China (40 percent of global greenhouse emissions) hold the key to a principled global agreement.



# **“Differentiated responsibilities” must be assumed...**

- **Burden sharing based on differences in:**
  - **national wealth per capita (‘capacity to pay’ principle);**
  - **aggregate projected contributions to greenhouse gas accumulation (‘let the polluters pay’ principle)**
- **The same principles would be relevant to all major global development dilemmas, e.g.**
  - **trade negotiations geared to aggregate reductions in protection levels with caps set and trading of protection allowances.**
  - **aggregate target reduction of barriers against immigration regimes combined with tradable immigration restriction allowances, etc.**

# while new evaluation approaches are adopted...

- **New evaluation objects**
  - **Privileged units of account: global policies and multi-country initiatives.**
  - **Project and country program evaluations as building blocks.**
- **New evaluation metrics**
  - **Triple bottom line'**
  - **'Green' national accounts**
- **New evaluation emphases**
  - **Focus on partnerships (shared objectives; distinct accountabilities; reciprocal obligations).**
  - **M&E symmetry: equitable emphasis in performance assessments.**

# **...on all transmission belts of globalization...**

- **Aid and beyond: vertical reviews of all global policies (trade, migration, energy, agriculture, etc.)**
  - **impact assessments of policy shifts**
  - **assessment of compensatory arrangements for losers**
  - **priority to international agreements (existing or proposed)**
- **Horizontal evaluation of “whole of government” policies**
  - **GPRSP**
- **Bottom up assessment of rich countries’ environmental and development footprints**
- **Assessment of regulatory regimes and standards**

# **...with methods that address risk and uncertainty...**

- **Rather than linear relationships between means and goals (results chains) consider complex system effects (backward and forward linkages).**
- **Take explicit account of unintended consequences and side effects**
- **Include economic, social, distributional, environmental and security indicators.**
- **Make full use of risk management theory**
- **Combine cost benefit analyses with probability theory**
- **Use institutional economics to address collective action dilemmas and encourage cooperation.**

# ...and relate program design to contractual obligations.

- **Redefine programs and projects as contractual alignment of rights, responsibilities and obligations, i.e. as bundles of contracts that make transparent the attribution of costs and benefits among partners under alternative scenarios**
- **Evaluate the explicit or tacit rules that influence the behaviour of stakeholders and the assignment of risks and benefits.**
- **Provide for capacity building to expand the choice among alternatives and enhance the freedom of the poor and the weak to secure their fair share of benefits.**
- **Design independent oversight arrangements to ensure that contracts are fairly drawn and adequately enforced.**

# **This means a reinvention of project evaluation...**

- **Incorporate fiduciary and conflict of interest considerations in the evaluation criteria instead of treating them as 'add ons'.**
- **Value resource allocations in terms of their opportunity costs, i.e. the benefits derived from alternative uses.**
- **Take explicit account of agency and monitoring costs.**
- **Assess the contractual allowances that address contingent events - as well as the absolute and relative seniority in the agreed allocation of risks.**
- **Evaluate how incomplete contracts are renegotiated in case of contingency and/or the assignment of the costs and benefits of uncertainty to project owners.**

# **..combined with full use of the evaluation tool kit...**

- **Option theory to assess the assignment of risks and uncertainties embedded in policies, programs and projects.**
- **Program theory, realistic and participatory evaluation for global collaborative programs.**
- **Meta-evaluation methods and theory-based evaluation techniques for policy evaluations.**
- **“New public management” tools for regulatory regimes and corporate social responsibility standards.**
- **Process evaluation techniques for institutional arrangements.**
- **Where appropriate, experimental or quasi experimental designs.**

# ...and sound evaluation governance arrangements.

- **Evaluation independence, objectivity and “value added”:**
  - arm’s length relationship with line managers and policy makers.
  - influence on policy formulation and decision-making.
  - compliance with the accountability, learning and transparency principles that evaluation is tasked to promote
  - oversight of self-evaluation findings and standards by independent evaluation .
- **Joint evaluations:**
  - the evaluation gap can be filled by innovative joint evaluations
  - governed by responsibilities and obligations agreed at the outset
  - with evaluation teams endowed with full autonomy
  - as well as adequate skills and resources.
- **Serious effort to involve developing countries:**
  - major commitment to evaluation capacity development ... and
  - participation of developing countries in evaluation agenda setting.



# Let us mobilize development to make war, poverty and climate change history!

*"The present is the past's future. Moreover, the future has an unnerving habit of becoming the present".*  
Partha Dasgupta

*"A thousand years ago, in Central America, great Maya cities tottered under medieval drought while Andean civilizations wilted in the face of an evaporating Lake Titicaca and faltering runoff in coastal river valleys".*  
Brian Fagan

*"Change is an ordeal and its only cure is action".*  
Eric Hoffer