

Brief on UNDP initiatives relevant for the NWP workshop on costs and benefits of adaptation options

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UNDP recognizes the need to assess the costs and benefits associated with climate change adaptation in order to support countries in making informed decisions to address climate impacts. Three key UNDP initiatives contribute to this work by providing guidance and technical support to countries for assessing costs and benefits of adaptation options. UNDP will present these three initiatives, focusing on the methodologies and observed results in countries.

1. Capacity Development for Policy makers to Address Climate Change: Assessing Investment and Financial Flows in Key Sectors

To better understand the magnitude of funds needed to tackle climate change, UNDP is engaged in **assessing investment & financial flows to address climate change in key sectors**. Currently, 20 developing countries are undertaking assessments of investment and financial flows (I&FF) to address climate change for key sectors as part of the UNDP global project, *Capacity Development for Policy Makers to Address Climate Change*. The following sectors were selected as key by participating countries: **agriculture** (by 12 countries); **water** (11); **health** (4); **coastal zones** (2); **forestry** (1); **biodiversity** (1); **fisheries** (1); and **tourism** (1). Although the I&FF methodology itself is straightforward in principle, the underlying assumptions and scenario development can be sophisticated. To date, most technical support to countries has focused upon the development and clear description of scenarios (including the assumptions, parameters, trends, etc) and ensuring that proposed adaptation measures are sufficiently concrete (for costing) and prioritized. Collecting time series of data has also been challenging. One clear benefit of the I&FF approach is that it requires the participation of a number of key line Ministries, including Finance/Planning, and provides a forum for inter-Ministerial discussions on long-term planning for climate change and development. Results can be shown from work in Costa Rica, Turkmenistan and Niger, with lessons learned presented from all twenty countries.

2. Climate Change Implications for MDG Achievement: Action Research and Practical Guidance to Support Sectoral and Finance Ministries in Africa

Secondly, UNDP's Poverty Group (PG) is currently finalizing a research report on the **links between climate change threats and MDG achievements**, which includes: a) identifying adaptation actions required to secure and sustain MDG gains, b) assessing the costs of such "adaptation" interventions, and c) highlighting possible financing mechanisms. This report draws upon well accepted estimates and models such as those of the Stern review (2006) to identify impacts. The teams has quantified these impacts while simultaneously developing methods drawing upon agricultural, environmental and economic tools that complement these assessments using micro data sets. This process will be presented, examining a representative selection of countries/regions. The report will then map out "additional adaptation interventions" required to climate proof and achieve MDGs at the regional and country levels and determine the incremental costs and benefits of these interventions. The technical report will be converted into easy to use guidance tools to assist finance and sectoral ministries in Africa to integrate climate change risk in key MDG Needs Assessment Tools to plan for now and beyond 2015. As the last step in this process, this costing exercise is now in progress.

3. World Bank – UN Joint Assessment : Economics of Climate-Induced Disasters

As a third relevant initiative, a World Bank – UN Joint assessment is currently being finalized which focuses on the **economics of disasters**, with a specific chapter on climate-induced extreme events. The assessment, which is due for publication in June 2010, creates a tight link between climate science and the estimated damages from climate-induced hazards. The study focuses on tropical storms, while also reviewing other hazards such as floods, droughts and heat waves. Using present and future climates based on a set of climate projections, frequency, path, and magnitude of each type of hazard. Damages from each hazard were then collected, as well as the relationship between national damages, national population and income, from the existing record over the last 20 years using data from every country (EMDAT). Given projected changes in population and income, the analysis then calculated how damages and fatalities would change by 2100. The results find that incorporating climate change alters the frequency and intensity of each hazard to varying degrees, and shift the distribution of resulting damages. Floods, tropical storms, and droughts are responsible for most of the increase in damages.