A Brief Review on Iran’s Initial Communication and Adopted Methodology in preparing the Second

The NCSP Workshop on Technology for Adaptation
17-19 October 2006
Tashkent-Uzbekistan

Amir Meshkatee
Iran’s Climate Change Office
Preface

• Summary of the V&A assessment work under the INC (e.g., scope of work, methodology used, key conclusions)

• Key features of the V&A studies under the SNC

• Objectives, scope, and methodology

• Progress made so far on V&A studies

• Difficulties encountered and/or envisaged, and priority needs for technical assistance
Introduction

• Iran’s National Climate Change Office was established in January 1998 under the auspices of the Department of Environment (DOE).
• Among other responsibilities, the office has built national capacity to systematically address climate change issues.
Iran’s Initial National Communication (INC)

- Iran’s INC comprises five chapters, namely:
  - National Circumstances,
  - Greenhouse Gas Inventory,
  - Greenhouse Gas Mitigation Policies,
  - Vulnerability and Adaptation Assessment,
  - National Proposed Strategies to Address Climate Change
IRAN

Is second largest country in Middle East

Population  > 72,000,000

Total Area  165,000,000 ha

Between latitudes 26 and 38 N and longitude 44 and 63 East

Therefore Iran has diverse:
Climate of Iran

Mean Annual Precipitation
- Iran: 253 mm
- World: 860 mm

Mean Annual Evaporation
- Iran: 2100 mm
- World: 700 mm
Climate of Iran

Approximately 85% of the country is Arid, Semi-Arid or Hyper-Arid

- Hyper Arid 35.5%
- Arid 29.2%
- Semi Arid 20.1%
- Wet of Cold mountainous type 10%
- Mediterranean 5%
Carbon Dioxide Emission

• Energy Sector  84%
• Industry Sector  7%
• Forests  9%
• It is estimated that CO2 emission by energy sector will increase by 5% per year, that means CO2 emission will increase from 337,525 Ggr per year in 1994 to 639,640 Ggr in 2010.
Vulnerability and Adaptation (V&A)

- V&A of the country to climate change were evaluated from two points of view:
  - Direct adverse impacts,
  - And indirect adverse impacts.
Direct Adverse Impacts

- Direct adverse impacts of climate change were evaluated on
  - Precipitation and temperature patterns,
  - Water resources,
  - Sea level rise and coastal zone,
  - Agriculture and food production,
  - Forestry,
  - Drought frequency and intensity,
  - Human health,
  - And, energy and industrial processes.
Indirect Adverse Impacts

• The study of indirect adverse impacts of climate change was mainly concerned with economic issues that could arise from the response measures taken by the developed countries.
Proposed National Strategies to Address Climate Change

• The proposed national strategies were classified under two main subjects, namely:
  – Capacity building,
  – And, sustainable development.
What are the meanings of Vulnerability and Adaptation?

- Vulnerability is defined as “the extent to which a natural or social system is susceptible to sustaining damage from climate change” (Schneider et al., 2001, p. 89).
- Adaptation is defined as “adjustment in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts” (Smit et al., 2001, p. 881).
Some Key Questions

• What is the main goal of doing V&A assessment?

• Who is the main user of the results of the assessment?
Those Questions are Key Factors in Determining How to Conduct Your Study

• You should not begin with the methods or models you have in hand, but with these questions
• Select methods and models that best help you answer the questions
Different Questions May Lead to Different Approaches

• Questions about how climate change may affect resources may lead to analysis of long-term impacts, e.g., out to 2100

• Questions about adaptation may lead to analysis of vulnerability within a planning horizon, e.g., 5 to 50 years
Who Is Asking the Question(s) May Matter for How the Work Is Done

• Some may be content with research that is conducted by the researchers
• Others may wish for a hands-on approach
  – e.g., involve stakeholders in conducting the analysis
Overview of Frameworks

• Select a framework or method that best suits:
  – Questions being asked
  – Who is asking them
  – What kind of answers are needed
  – What resources and time are available
Impacts Frameworks Driven by Need to Understand Long-Term Consequences

- Tend to look out many decades (to 2100 or beyond)
- Tend to be scenario driven
Adaptation Frameworks Driven by Need to Supply Useful Information to Stakeholders

- Tend to address near-term concerns
  - Often address climate variability and change
  - Emphasis on socioeconomic context
- Driven by stakeholder identification of issues and involvement in process
  - Bring in analysis as necessary and appropriate
  - Could use non-analytic techniques
Adaptation Frameworks

- UNDP Adaptation Policy Framework
- NAPA Guidance
- UKCIP
UNDP Adaptation Policy Framework (continued)

- Contains technical papers on:
  - Scoping and designing an adaptation project
  - Engaging stakeholders in the adaptation process
  - Assessing vulnerability for climate adaptation
  - Assessing current climate risks
  - Assessing future climate risks
  - Assessing current and changing socioeconomic conditions
  - Assessing and enhancing adaptive capacity
  - Formulating an adaptation strategy
  - Continuing the adaptation process