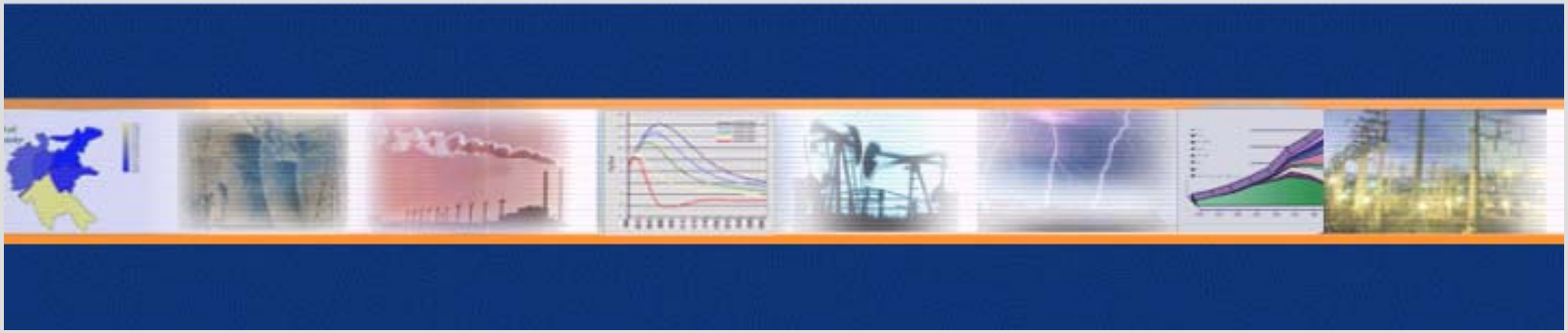
Overview of Our CAPaBLE Project



P.R. Shukla

APEIS Training Workshop

Nov. 24 to Dec. 8, 2004, National Institute of Environment Studies, Tsukuba

Project Title

Integrated Assessment Model for Developing Countries (IAMDC) and Assessment of Mitigation Options and Sustainable Development Opportunities

Objectives

1. To develop tools for policy analysis for integrating climate change and sustainable development concerns of developing country policy makers.

2. To enhance capacity of developing countries for integrated assessment of climate change mitigation options in the context of sustainable national development priorities and policies.

Participating Countries/ Institutions

China	Energy Research Institute (ERI), Beijing,
India	Indian Institute of Management, Ahmedabad (IIMA)
Thailand	Asian Institute of Technology (AIT), Bangkok

Tasks

1. Development of national scenarios
2. Validation of model framework
3. Model development
4. Development of Strategic Database
5. Website development and maintenance
6. Setting up Country Models
7. Assessment of Base Scenario
8. Development of integrated framework
9. Model integration
10. Capacity Building

Project Website

www.e2Models.com

Developing Country Dynamics

1. What make developing countries different?
2. Modeling vs. Model Developments

Transitions
Socio-Economic

- Demographic
  - Population
  - Urban / Rural
  - Gender ratio
  - Migration
- Development
  - Soft indicators: Income, Equity, Literacy, Health
  - Hard indicators: Infrastructure, Housing, Vehicles, Appliances
- Political
  - Institutions
  - Laws
  - Policies

Transitions
Energy Resources

- Fossil Futures
  - Conventional Coal/Gas/ Oil
  - Unconventional Oil/ Gas
- Renewable Energy
  - Bio-technology
  - Solar
- Large Hydro
  - Multi-purpose schemes
- Nuclear
  - Fission with zero waste
  - Fusion

Transitions
Demand-side Energy

- Efficient Appliances
- Substitutions (e.g. Information for transport)
- Advance Technologies
  - Fuel-cell
  - Hydrogen economy
  - Bio-engineering

Transitions
Technology

- Logistics
  - Pipelines
- Electricity T&D
  - Decentralized utilities
- Information
  - Wireless
- Nanotechnology

Transitions
Environment

- Awareness
  - Pressure groups
- Income-effects
  - E.g. Kuznets phenomenon
- Laws and Regulations
  - Global agreements
  - National policies
- Technology
  - Zero-effluent Processes
  - Recylcing

Transitions

Consumption &Life-style

- Conservation
  - Substitutions
  - Recycling
- City Planning
- Architecture/ Building Codes
- Sustainable Habits / Traditions

Modeling Transitions

- Scenarios
- Dynamics
- Databases
- Linkages
- Purpose

Thank you !