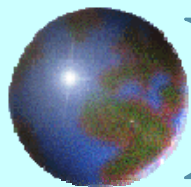




World Bank Experience: Cumulative Effects Assessment and Management

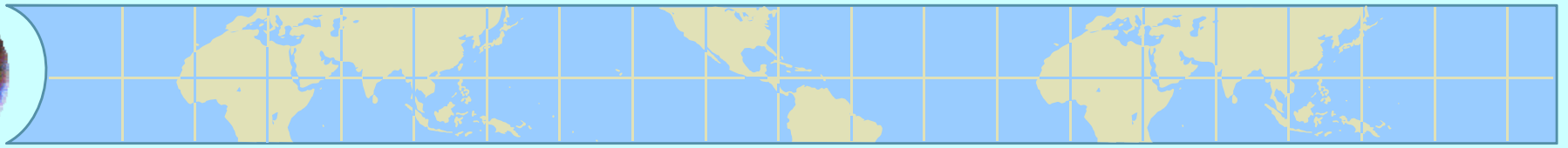
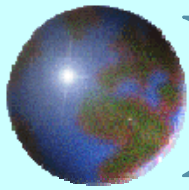
**Dr. Stephen F. Lintner
Senior Technical Advisor
World Bank**

**IAIA – Calgary
November 2008**



World Bank: Five Points

- ❖ Focus on poverty reduction, including Millennium Development Goals
- ❖ Commitment to environmentally and socially sustainable development, supporting outcomes from the Rio and Johannesburg Summits
- ❖ Promoting country driven development effectiveness, including the Paris Declaration and Accra Action Agenda
- ❖ Integration of climate change, including adaptation and mitigation, into development strategies
- ❖ Actively supporting responsible growth worldwide

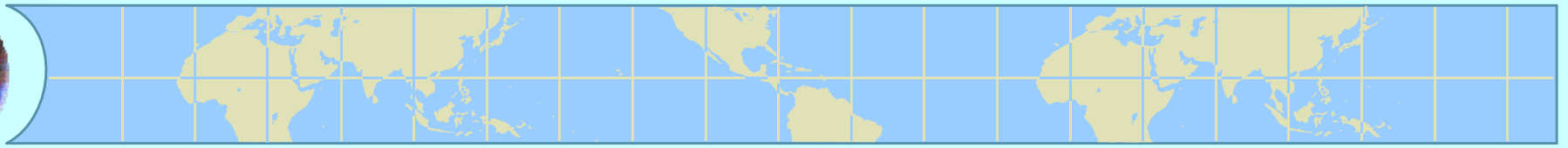
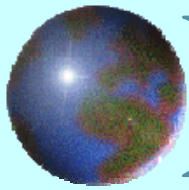


10 Safeguard Policies

- ❖ Environmental Assessment
- ❖ Natural Habitats
- ❖ Forests
- ❖ Pest Management
- ❖ Physical Cultural Resources
- ❖ Involuntary Resettlement
- ❖ Indigenous Peoples
- ❖ Safety of Dams
- ❖ Projects involving International Waters
- ❖ Projects in Disputed Areas

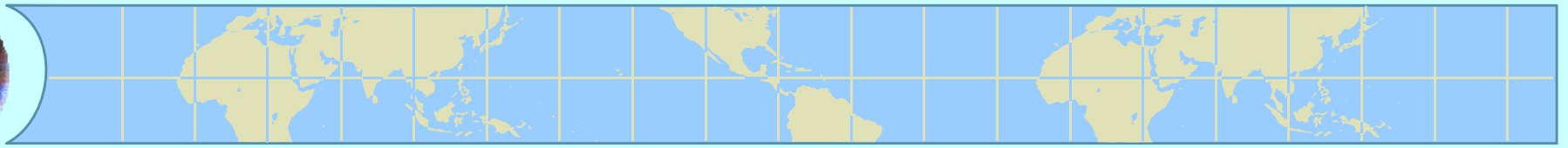
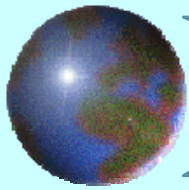
Plus Disclosure Policy

Piloting Use of Country Systems



World Bank Group

- ❖ International Bank for Reconstruction and Development
- ❖ International Development Association
- ❖ International Finance Corporation
- ❖ Multilateral Investment Guarantee Agency
- ❖ International Center for Settlement of Investment Disputes



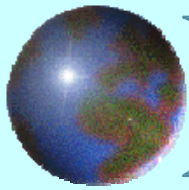
World Bank Policy

Operational Policy on Environmental Assessment

“**Sectoral EA** pays particular attention to potential cumulative impacts of multiple activities”

“**Regional EA** pays particular attention to potential cumulative impacts of multiple activities”

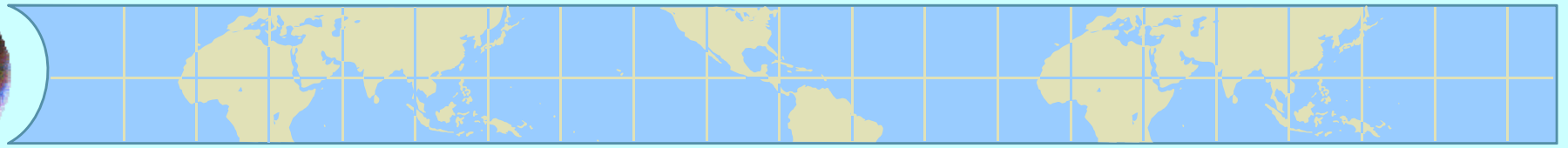
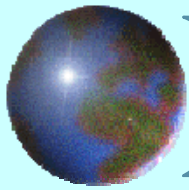
*Other Multilateral Development Banks
Have Similar Policy Provisions*



IFC Policy

Performance Standard 1

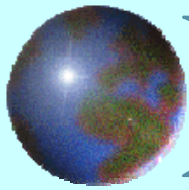
5. Risks and Impacts will be analyzed in the context of the project's area of influence:
 - (iii) Areas potentially impacted by cumulative impacts from further planned development of the project, any existing project or condition, and other project-related developments that are realistically defined at the time the Social and Environmental Assessment is undertaken; and
 - (iv) Areas potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that would occur without the project or independently of the project.



Cumulative Effects – Instruments

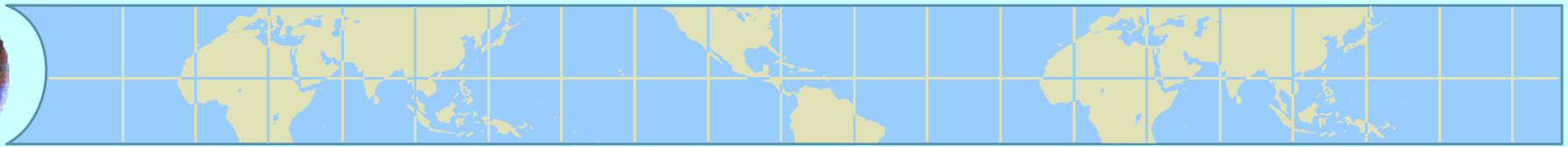
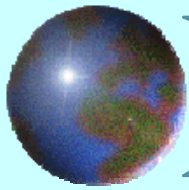
- ❖ Regional Environmental Studies and Programs
- ❖ Strategic Environmental Assessment
- ❖ Sectoral Environmental Assessment
- ❖ Regional Environmental Assessment
- ❖ Environmental Assessment
- ❖ Cumulative Impact Assessment
- ❖ Targeted Studies on Specific Issues

Need to Make the Critical Transition from Analysis to Management of Cumulative Environmental Effects



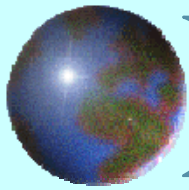
Cumulative Effects: Trends

- ❖ Continued engagement in regional environmental studies and programs linked to addressing cumulative effects
- ❖ Increased use of strategic, sectoral and regional environmental assessments Bank-wide
- ❖ Expanded number of regional programs and projects, especially in the Africa Region due to focus on regional integration
- ❖ Increase in large scale projects with diverse and complex impacts and risks that are often cumulative
- ❖ Greater recognition of cumulative effects of small and medium scale projects with multiple interventions



Cumulative Effects: Issues

- ❖ Decision makers and the public are frequently not familiar with the concept of cumulative effects
- ❖ Issue of the instrument to be used and the timing for undertaking the analysis
- ❖ Establishment of clear boundaries for the analysis in time and space
- ❖ Need to develop analysis in many cases with limited data of variable quality
- ❖ Major issue exists regarding financial responsibility for studies – especially in multi-country settings and with private sector project sponsors
- ❖ Addressing climate change is our new challenge



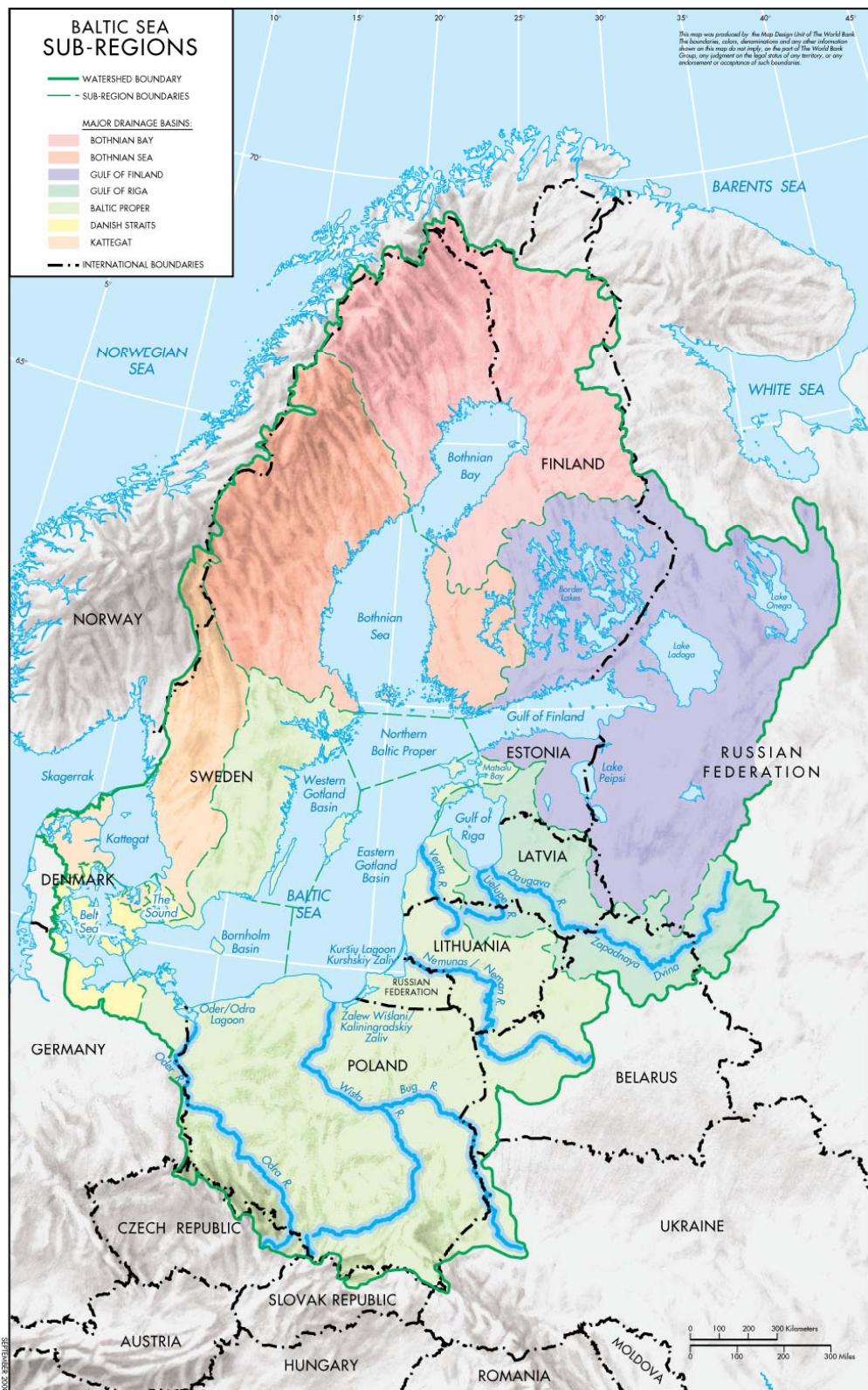
Regional Studies and Programs

- ❖ Medium-long term multi-country programs to address management of cumulative effects
- ❖ Regional seas and river basins
 - Baltic Sea
 - Danube River Basin
 - Mediterranean Sea
 - Nile River Basin
 - Red Sea and Gulf of Aden
- ❖ Based on analysis of environmental conditions and their causes
- ❖ Identification of emerging issues and trends
- ❖ Supporting management actions, investments and institutional strengthening

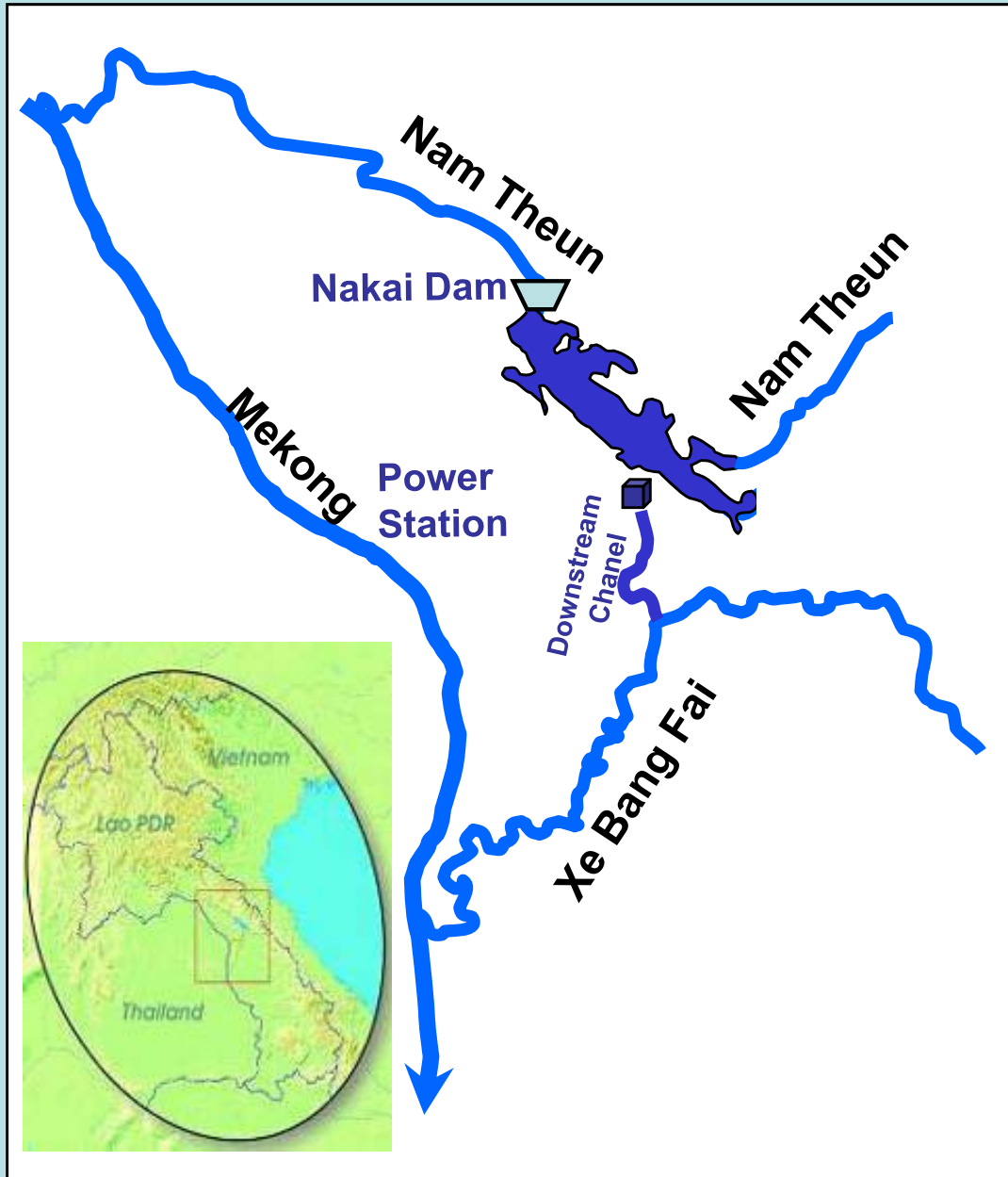
BALTIC SEA SUB-REGIONS

- WATERSHED BOUNDARY
 - SUB-REGION BOUNDARIES
- MAJOR DRAINAGE BASINS:
- BOTHNIAN BAY
 - BOTHNIAN SEA
 - GULF OF FINLAND
 - GULF OF RIGA
 - BALTIC PROPER
 - DANISH STRAITS
 - KATTEGAT
- - - INTERNATIONAL BOUNDARIES

This map was produced by the Map Design Unit of the World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.



NAM THEUN 2

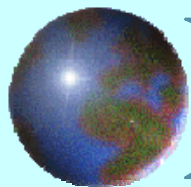


Power Generation

- **Diversion Scheme - Nam Theun River into the Xe Bang Fai River – both tributaries of Mekong**
- **~350m head down from Nakai Plateau – with a 50m high dam**

Power Use

- **1,080MW capacity is three times current Lao demand, and 1.5 times current installed capacity**
- **95% of electricity to be sold to Thailand**



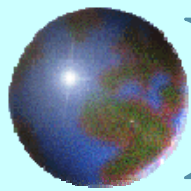
Lao PDR: Nam Theun 2 Hydropower Project

Studies

- ❖ Mekong River Basin Commission – long-term studies at the Basin level
- ❖ Strategic Environmental Assessment – hydropower sector
- ❖ Cumulative Impact Analysis
- ❖ Project specific Environmental Assessment

Management

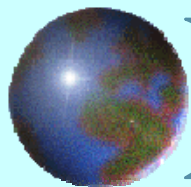
- ❖ Country dialogue with World Bank
- ❖ Lao – Thai Forum on Hydropower Development
- ❖ Project related actions, management plan and monitoring
- ❖ Extensive multi-level consultation and outreach program



Lao PDR: Nam Theun 2 Hydropower Project

Cumulative Impact Analysis

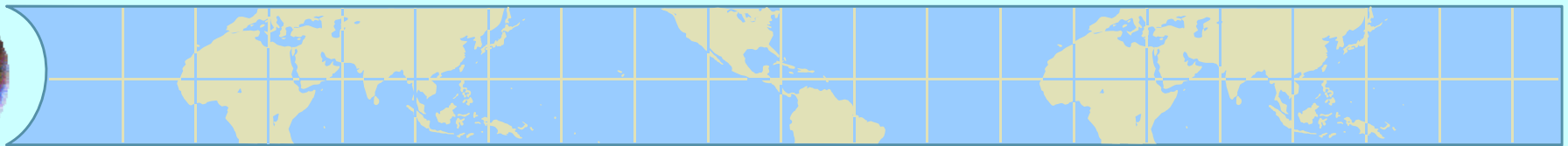
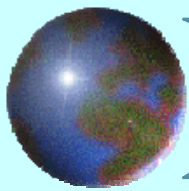
- ❖ Understanding of cumulative impacts of NT2 in the regional context
- ❖ Evaluated a 5-year and 20-year planning horizon
- ❖ Examined impacts at multiple levels – Mekong River Basin and Sub-Basins in Lao PDR
- ❖ Supported identification of planning and management actions to be considered by multiple parties
- ❖ Used to support design and implementation of the Nam Theun 2 Project



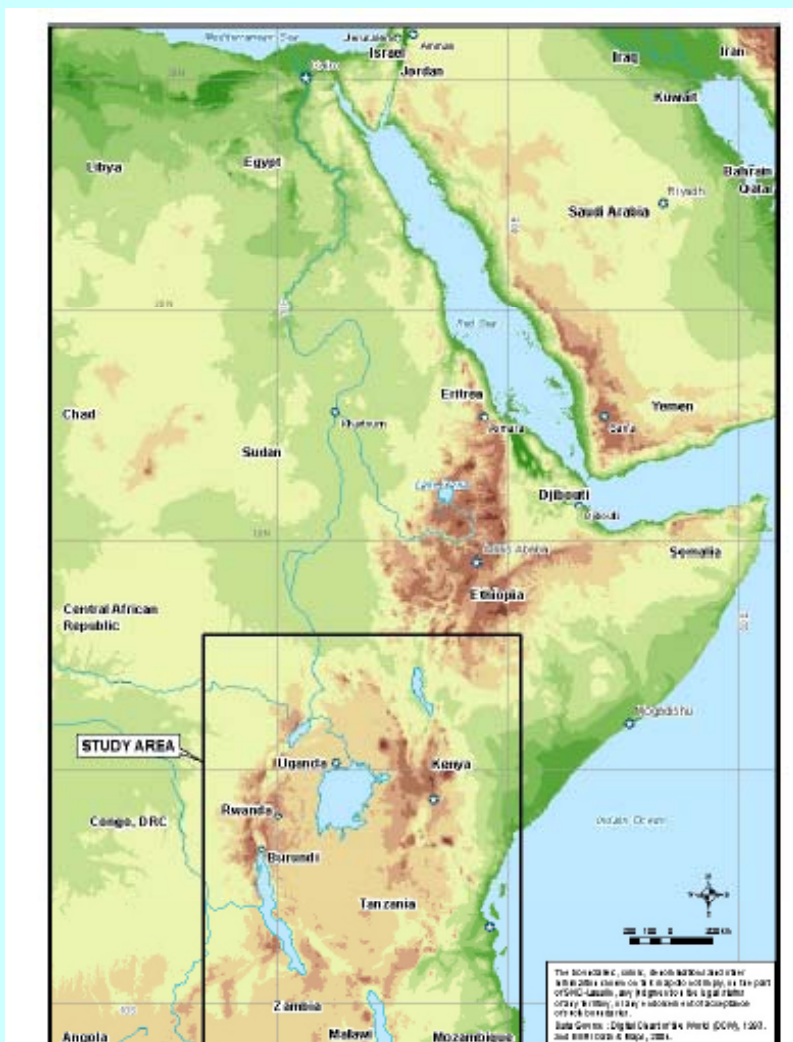
Lao PDR: Nam Theun 2 Hydropower Project

Cumulative Impact Analysis – Key Topics

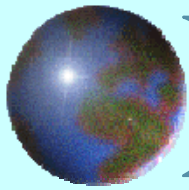
- ❖ Sector plans and development trends
- ❖ Hydrology and hydropower development
- ❖ Fisheries and fish biodiversity
- ❖ Rural land use and irrigation
- ❖ Health and population growth
- ❖ Drugs and human trafficking
- ❖ Ethnic minorities



Strategic Social and Environmental Assessment – Nile Basin – Equatorial Lakes

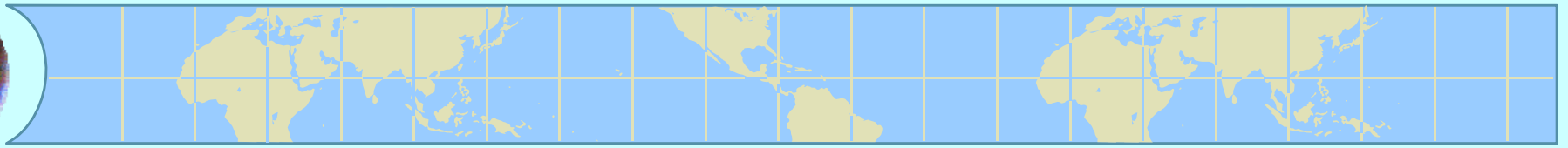
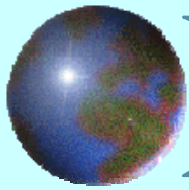


- ❖ Part of planning process for Nile Basin Initiative
- ❖ Examined a potential portfolio of hydropower projects including in adjacent watersheds
- ❖ Evaluated cumulative effects in a comparative and often qualitative manner



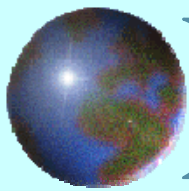
Strategic Social and Environmental Assessment – Nile Basin – Equatorial Lakes

- ❖ Planned to be complemented by a second SEEA for the Eastern Nile Basin
- ❖ Used to support decision making for and design of the Bujagali Hydropower Project in Uganda which is under implementation
- ❖ Identified a number of potential cumulative effects and needs for both studies and management actions
- ❖ Analysis of cumulative effects will need to be improved over time to support future decision making and management actions

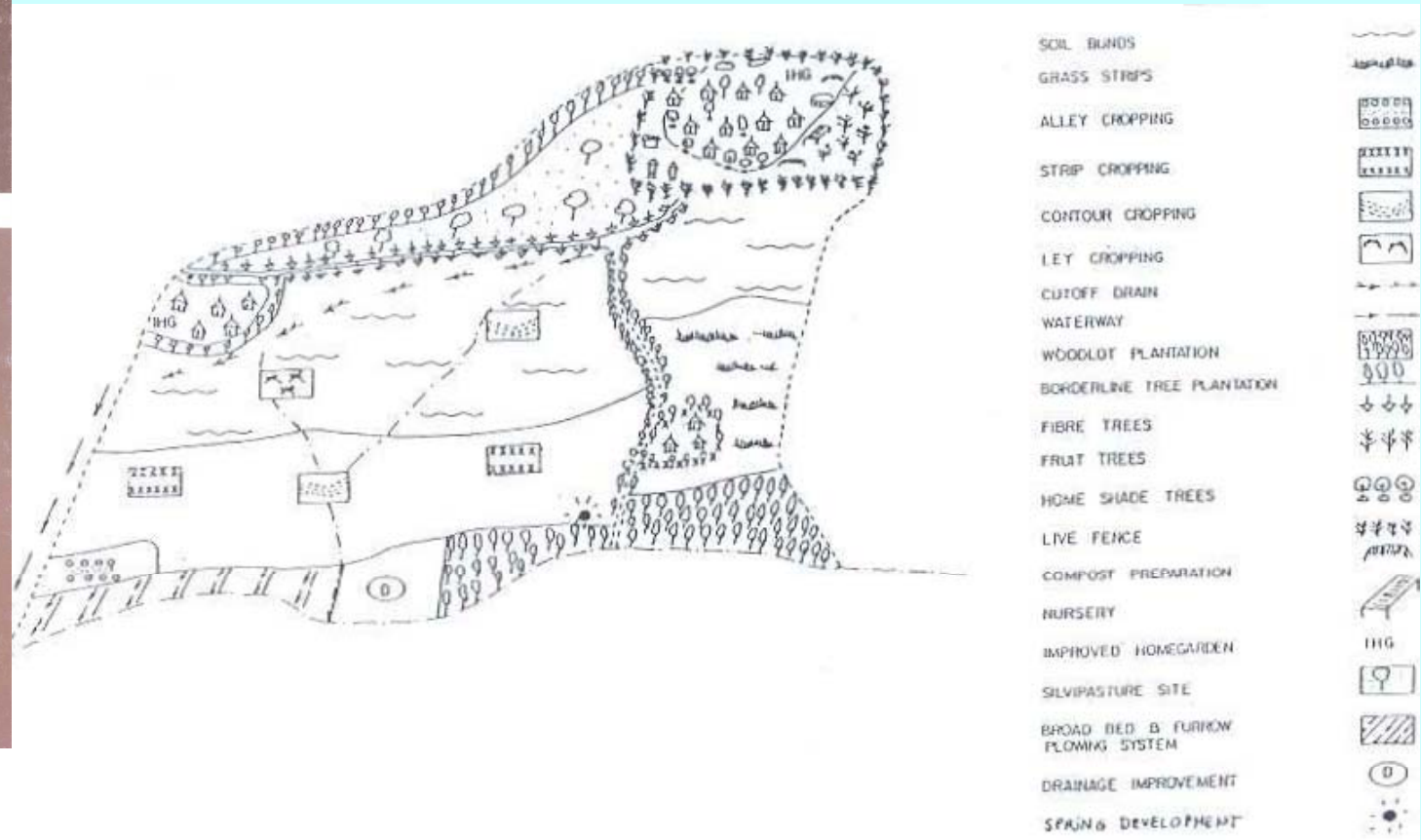
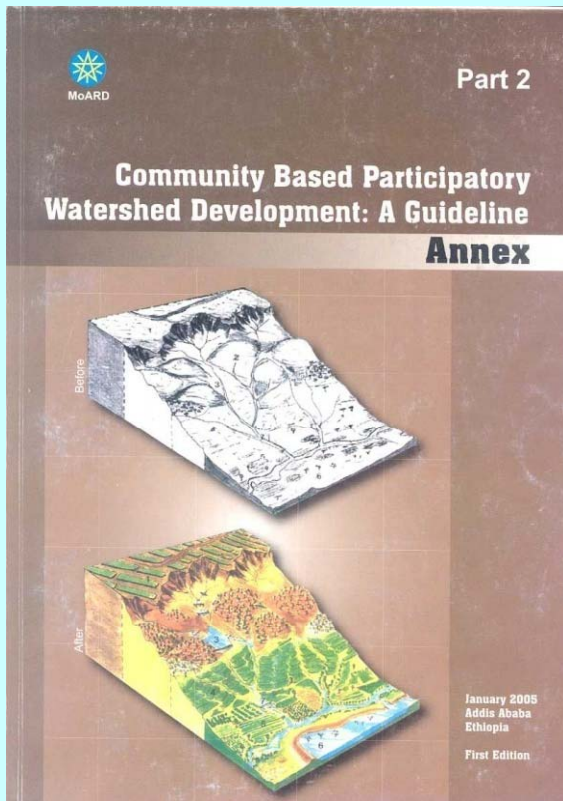


Ethiopia: Productive Safety Nets

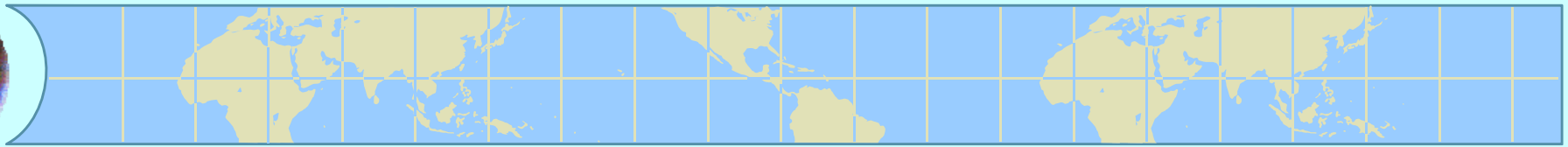
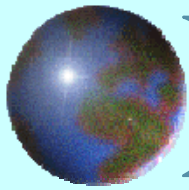
- ❖ The PSNP supplies around US\$250 M/year in the form of transfers, in food or cash, to 8.2 million beneficiaries – vulnerable poor in famine relief areas
- ❖ Transfers are provided as salary for work on community-selected development projects
- ❖ Active in 6 regions including 12,000 communities, 40,000 projects, and employing 1,200,000 people
- ❖ Environmental and social management framework used and a cascade training program reached 500 local government staff, 5,000 local extension agents and 12,500 communities



Ethiopia: Productive Safety Nets



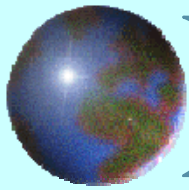
Projects are Designed and Planned by Community According to Watershed Management Principles



Cumulative Effects – 1970s

Energy Development – Western United States

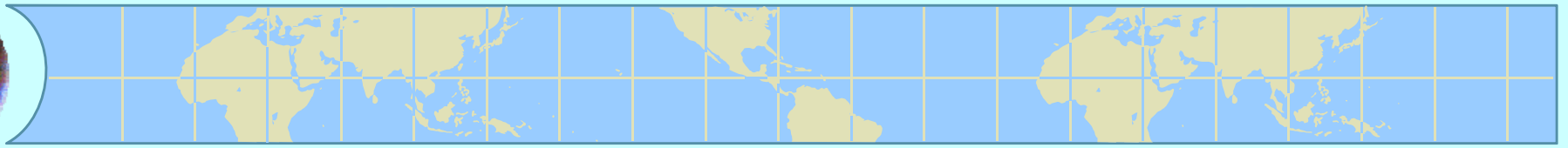
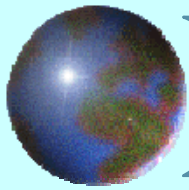
- ❖ Alaska, North Dakota, Montana, Wyoming, Colorado, Utah, New Mexico and Arizona
- ❖ Transboundary studies led by Federal Government in cooperation with states, counties and Indian Nations
- ❖ Mandated by recognition that the cumulative environmental and social impacts would be significant and required management
- ❖ A series of rapidly prepared regional environmental assessments linked with site specific environmental assessments



Cumulative Effects – 1970s

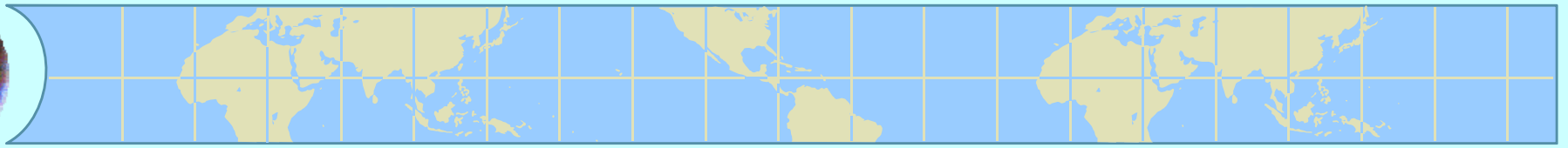
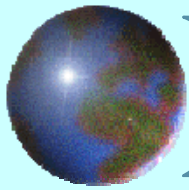
Energy Development – Western United States

- ❖ Major focus on cumulative impacts from oil and coal mining operations and thermal power plants, transport of oil and coal, rapid economic development of regions and communities
- ❖ Key issues – coordination between parties; determining who would be responsible administratively and financially between multiple levels of government and the private sector
- ❖ Challenge – making reasonable decisions in a limited time frame with uneven information under significant political pressure linked to a national “energy crisis”



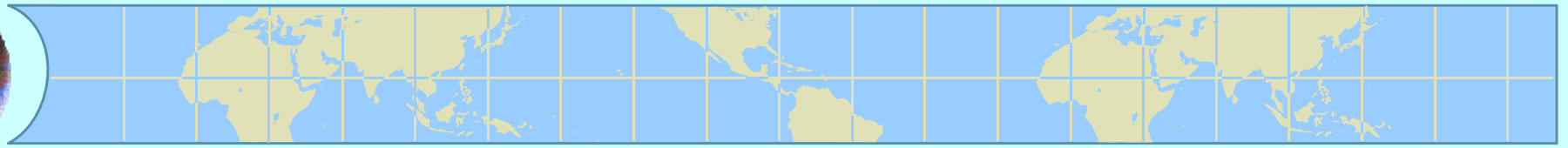
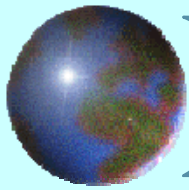
Cumulative Effects – Moving Forward

- ❖ Moving from a mandate based on legal or policy requirements linked to impact assessment, to greater voluntary use as an element of strategic planning and management programs
- ❖ Increasing influence of CEA on public and corporate decision making requires studies that are more targeted to addressing key questions of interest to decision makers and the public
- ❖ Expanded emphasis on identification of emerging trends and the need to tell the “story behind the story”
- ❖ Enhancing the scoping of CEA through greater use of informal consultative processes and focus groups



Cumulative Effects – Moving Forward

- ❖ Improving cost effectiveness and timely preparation of studies to increase their initiation and actual use in decision making and management
- ❖ Being more transparent about data limitations and their implications for decision making and risk taking
- ❖ Improving methods for consultation and disclosure, especially in multi-jurisdictional settings
- ❖ Expanding focus on analysis of cumulative impacts and risks from both action and inaction – recognizing that action may have major adverse impacts and that risks may be necessary



More Information on Safeguard Policies at the World Bank Group

- ❖ **Dr. Stephen F. Lintner**

- 1-202-473-2508
- slintner@worldbank.org

- ❖ **Safeguards Website**

www.worldbank.org/safeguards

- ❖ **SEA Tool Kit Website**

www.worldbank.org/seatoolkit

- ❖ **IFC's Sustainability Policy Framework**

www.ifc.org