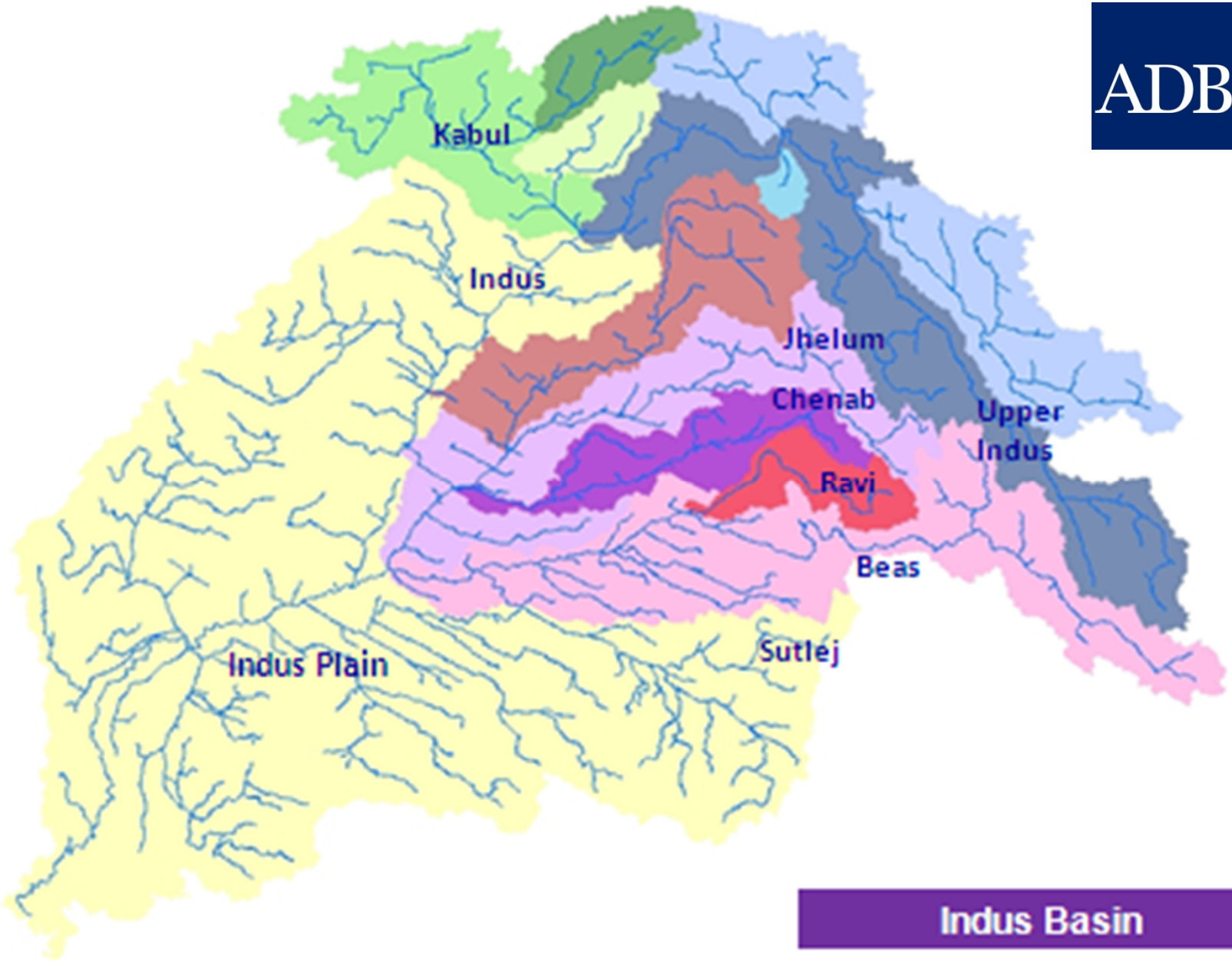
Asia Pacific Adaptation Forum, Bangkok

ADB

MAINSTREAMING ADAPTATION IN WATER AND ENERGY SECTORS IN INDUS BASIN PAKISTAN FOR CLIMATE SMART INVESTMENTS


ADB
Kabul
Indus
Jhelum
Chenab
Upper
Indus
Ravi
Beas
Sutlej
Indus Plain
Indus Basin

HOW CLIMATE CHANGE IMPACTS RIVER FLOWS IN INDUS BASIN

- VARIATION IN GLACIAL MELT RATE, and
- CHANGING RAINFALL PATTERNS, INTENSITY AND DURATION

  EFFECT PEAK DISCHARGE, VOLUME, AND DURATION


ADB
6 8 2010

Fundamental Questions

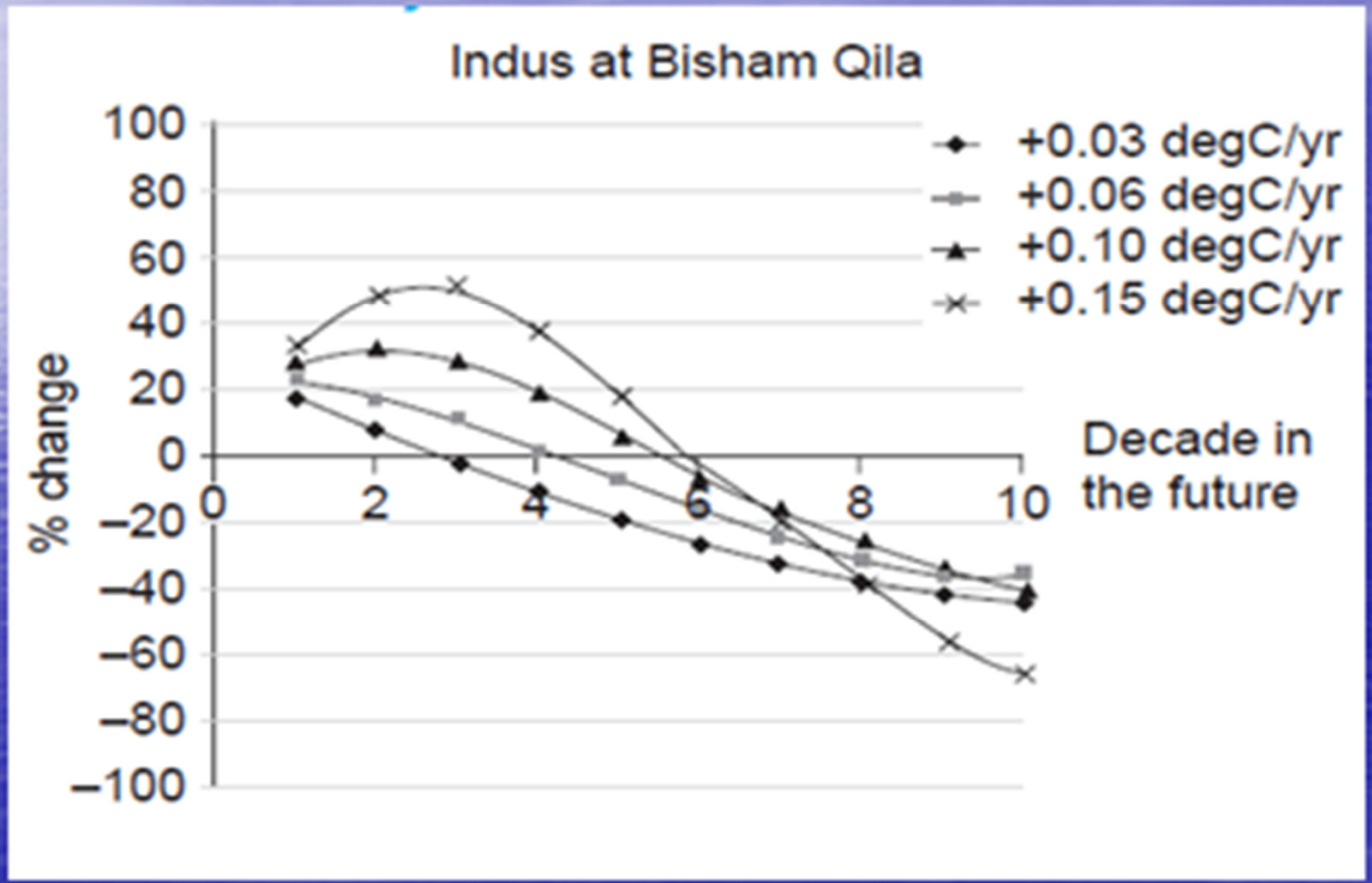
- Are investments safe?
- Can projects sustain?
- Can projects remain productive?
- Can existing projects be made climate-proof?
- How future investments could be made climate-proof?

ADB's Technical Assistance

Glacial Melt and Downstream Impacts on Indus-Dependent Water Resources and Energy (2009)

- Identify knowledge gaps, and
- Suggest measures for ADB/host country operations to adapt to climate change

Flow Patterns



Proposed Priority Interventions for Indus Basin-Pakistan

- Temperature – Runoff Modeling *for correlating river flows with temperature*
- Rainfall – Runoff Modeling *for correlating river flows with rainfall*
- Forecast River Flows under various scenarios
- Generate 50 Years River Flow Data Series for various locations in the basin

How will this data help

Planners, Designers, Decision Makers will know:

- Productive potential (MW of Power, BCM of Water etc.), and
- Maximum possible flood peaks, under climate change scenario.

TO plan investments; design size, capacity and safety features of the projects