Institutional Innovation for Energy, Food and Water Security In South Asia

The Sustainable Development Investment Portfolio (SDIP) Programme

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Sustainable Development Investment Portfolio (SDIP)

Australia – partnering in South Asia for long term food, energy and water security

Outcome Areas
- Mechanisms/institutional capability for regional cooperation
- Knowledge to inform resource management decision making
- More effective enabling environment

SDIP integrated management of food, energy and water – addressing climate risks and the interests of women and girls
The Food, Energy and Water Nexus

Demand

Interlinkages

Up 28% to 2050

15% of fresh water used for Energy

Interlinkages

Energy

Up 38% to 2050

Interlinkages

Food

Up 70% to 2050

70% of Fresh Water used for Agriculture

Interlinkages

Water

30% of Energy goes to food production and consumption

Demand

Climate Impacts
The Nexus Challenges for South Asia

Population – now 1.870b; 2050 2.24b
Poverty – 15%
Under $3.10 – 50-60%
Urbanisation – now 35%; 2050 50%
Stunted Children – 37.5%
Over 90% of water used for agriculture
Climate change – 35-40% decline in crop yield; 10% more irrigation water used

Energy
- Massive growth in demand
- Critical to prosperity of the region and tackling poverty
- Energy choices will have long term Impacts
- Significant agriculture/energy/water linkages
- Climate change impacts on and of energy
Institutional Constraints

Policy Stove Pipes

Sector Stove Pipes
Government, Business, Civil society Stove Pipes

Weak Mechanisms for cross boarder resource management

Less than adequate Science Policy Interface

Limited Foresight and Scenario Thinking
The SDIP Programme – Impact Examples

- Improved energy and water usage in Agriculture – reduced GHGs and increased yield - adoption of conservation agriculture across EGP
- More energy and water efficient industries – sugar industry in Nepal, garment manufacturing in Bangladesh
- Large scale solar energy in India reduction in water use from 5 to 0.03 ltr per kw/h relative to coal – and 18 million access to off grid small home appliances – reducing dependence on kerosene and biomass
- Co-developed the trial Indus River System Model (IRSM) – Water Apportionment Accord (WAA) tool that can support foresight and trade-off analysis
- Support for the Hindu Kush Himalaya Assessment - categorical assessment that 1.5 degree increase is too hot
- Development of food systems foresight and policy processes
- Spaces for dialogue- cross institutional and cross jurisdictional
Systemic Risks

Transformational Opportunities