

# PRIORITY THEMES FOR ADAPTATION TO CLIMATE CHANGE IN HYDRO-ELECTRICITY SECTOR IN NEPAL

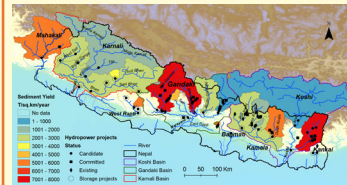
Current climate and hydrological variability is a major challenge for Nepal's hydro-sector

... and future climate change will potentially increase risks

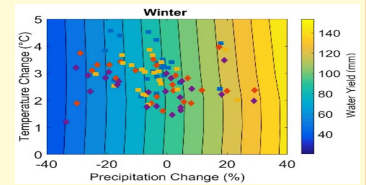


But Adapting the hydro sector of Nepal is challenging

VULNERABILITY VARIES WITH LOCATION & PLANT



FUTURE CLIMATE CHANGE IS UNCERTAIN



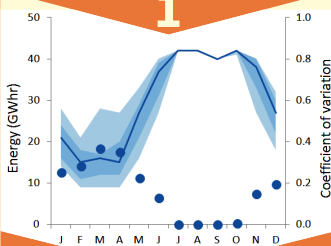
This requires a different approach, focused on what to do over the next decade, with decision making under uncertainty

## ADDRESSING CURRENT ADAPTATION DEFICIT

This starts with addressing current climate variability

### CURRENT CLIMATE VARIABILITY

1



The priority is for Nepal's hydropower system to better address current climate variability; this will also build resilience to future climate change.

### DISASTER RISK MANAGEMENT

2



Disaster risk management at the river basin level is needed to mitigate the impacts of climate induced hazards (floods, sediments, glacial lake outburst floods and geo-hazards).

### HYDRO-MET DATA IMPROVEMENT

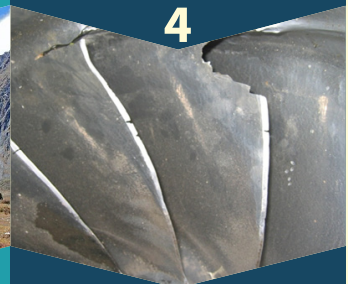
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Further strengthening of hydro-meteorological information-building on the existing positive initiatives - is critical to support early adaptation.

### RISK AUDIT AND GOOD PRACTICE

4



Risk audits of existing and under-construction plants, plus awareness raising and good practice examples, are key early priorities.

## MAINSTREAMING CLIMATE CHANGE

It also looks at the opportunity to include climate smart design in new plants and system planning

### RISK SCREENING & DESIGN STANDARDS

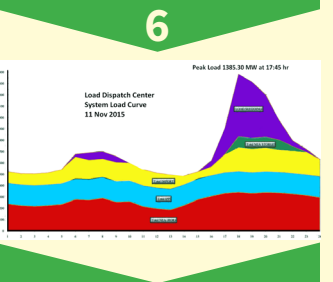
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Climate risk screening should be undertaken for planned plants, supported by revised design standards and guidance on what works.

### POWER SYSTEM PLANNING

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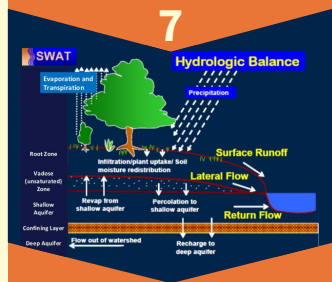
Enhanced project design and system planning is needed, considering how market, pricing and regulatory regimes could enhance climate smart development.

## EARLY ACTION FOR LONG TERM IMPACTS

Finally it builds the research and evidence base to help improve future decisions

### INVEST TO LEARN, MONITOR & RESEARCH

7



There is a need to invest to learn, with monitoring, research and pilots, to improve future decisions and investments.

### INSTITUTION

8



Finally, institutional strengthening and capacity building are keys to mainstream climate change into future sector development plans and policies.