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ACRONYMS

CBA	Community-Based Adaptation	NAPA	National Adaptation Programs of Action
EIA	Environmental Impact Assessment	NGO	Non-governmental or Non-profit Organization
GCM	Global Climate Model, or Global Circulation Model	RCM	Regional Climate Model
GHG	Greenhouse Gases	SEA	Strategic Environmental Assessment
GLOF	Glacial Lake Outburst Flood	SEIA	Social and Environmental Impact Assessment
IPCC	Intergovernmental Panel on Climate Change	UNEP	United Nations Environment Programme
IRBM	Integrated River Basin Management	UNFCCC	United Nations Framework Convention on Climate Change
IWRM	Integrated Water Resource Management	WCD	World Commission on Dams
MW	Megawatt		

GLOSSARY

Climate adaptation: An adjustment in natural or human systems in response to actual or expected climatic impacts, which mitigates harm or seeks out beneficial opportunities. (IPCC)

Climate change: A change in climate that is attributed directly or indirectly to human activity, which alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. (UNFCCC)

Climate mitigation: Actions to limit the magnitude and/or rate of long-term climate change. It usually involves the reduction in manmade greenhouse gas emissions.

Climate model: A numerical representation of the climate system based on its physical, chemical and biological components, their interactions, and feedback processes. The climate system can be represented by models of varying complexity. (IPCC)

Climate projections: A projection of the response of the climate system to various greenhouse gas emissions and concentrations scenarios, often based upon climate model simulations. Climate projections are different from climate predictions in that they depend on the types of scenarios used and their assumptions on future socioeconomic and technological situations. (IPCC)

Climate resilience: Efforts to strengthen key characteristics of complex systems, people and organizations to enable them to handle both anticipated and unanticipated stresses and shocks from future climate change.

Climate variability: Variations in the average state of the climate on all spatial and temporal scales beyond those of individual weather events. Variability may be due to natural internal processes within the climate system or to variations in natural or human-made external processes. (IPCC)

Community-based adaptation: A process based on a community's priorities, needs, knowledge and capacities, which should empower people to plan for and cope with the impacts of climate change.

Downscaling: A method that derives information for the local or regional scale from larger, global-scale models. Downscaling is used in top-down approaches to assessing climate risks.

Ecosystem services: Benefits that people obtain from ecosystems. These include provisioning services such as food, water, timber and fiber; regulating services that affect climate, floods, disease, wastes and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation and nutrient cycling.

Environmental flows: A system for managing the quantity, timing and quality of water flows below a dam, with the goal of sustaining ecosystems and the human livelihoods that depend on them.

Evapotranspiration: The transport of water into the atmosphere from surfaces, including soil, vegetation and bodies of water.

General circulation models: General circulation models, or GCMs, representing physical processes in the atmosphere, ocean and land surface are the most advanced tools currently available for simulating the response of the global climate system to increasing greenhouse gas concentrations. Scientists attempt to understand regional impacts by downscaling GCMs.

Indirect impacts: Impacts on the environment that are not a direct result of a project, but which are often mentioned in Cumulative Impact Assessments. Sometimes referred to as second or third level impacts, or secondary/tertiary impacts.

Integrated Resource Planning: A comprehensive and holistic methodology to plan a country's resource options that prioritizes energy efficiency and demand-side management, equally weighs the full range of feasible supply-side and demand-side options, and assesses them against a common set of planning objectives and criteria that have been agreed to based on a transparent and participatory process.

Integrated Water Resources Management: A process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resulting economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

Non-stationarity: The concept that due to climate change, past hydrological records are no longer a reliable indicator of potential future trends

No-Regrets Adaptation: Activities that can bring benefits (such as poverty alleviation or improved food and water security) even in the absence of climate change.

Precautionary principle: Where an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically. In this context, the proponent of an activity, rather than the public, should bear the burden of proof.

Resilience: The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change. (IPCC)

Risk assessment: The process of evaluating the risks associated with a particular hazard before taking some action. A climate change or climate risk assessment is the practice of identifying and evaluating the risks and effects of climate change on natural and human systems. Climate projections and on-the-ground observations are used to first identify how the climate is changing, and then the impact of those changes on systems such as river basin dynamics or community livelihoods are assessed, through, for instance, hydrologic modeling and community-level consultations.

River basin: Also known as a catchment, a river basin is a portion of land drained by rivers and tributaries.

Runoff: Water that is not absorbed into the ground but instead flows across the land and eventually runs into streams and rivers.

Sensitivity: Sensitivity is the degree to which a system is affected, either positively or negatively, by certain changes such as climate variability. The effect may be direct (such as a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (such as damages caused by an increase in the frequency of coastal flooding due to sea level rise).

Stationarity: The idea that future hydrology is predictable and can be based on past hydrological records, and that water-dependent infrastructure projects can be designed to be reliable.

Threshold: A level of magnitude at which sudden or rapid change occurs in a system. The climate system tends to respond to changes in a gradual way until it crosses some threshold. At the threshold, the change is more sudden compared to the changes that occur before or after the threshold and can lead to a new state.

Vulnerability: The degree to which a system is susceptible to, and unable to cope with, adverse effects of change, such as climate variability and extremes. Climate vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, as well as its sensitivity and adaptive capacity. A vulnerability assessment attempts to identify the root causes for a system's vulnerability to climate change.