

# CASE STUDY – ENERGY

# TANZANIA

## CONTEXT

Hydropower is the largest source of renewable electricity, but solar and wind power are projected to boost their generation capacity.



There are, however, significant climate-related challenges with developing additional renewable energy capacity.



Climate variability can lead to energy shortages and limits in generation capacity.



The current energy mix is significantly dependent on reservoir-fed hydropower.



Droughts increase the pressure on using available water for agriculture and sanitation.



Climate change may increase the frequency of climate conditions that impact power generation, livelihoods, health and wellbeing.



TANESCO and Total need to know how climate variability/change will affect renewable power generation and development plans.



## TOOLS & APPROACH



A close collaboration and co-production with end-users and climate services providers.



Identification and analysis of historical datasets and future climate projections.



Development of area-specific seasonal predictions of rainfall, wind solar radiation.

## EXPECTED RESULTS

1 Reliable climatology maps and long-term statistics.

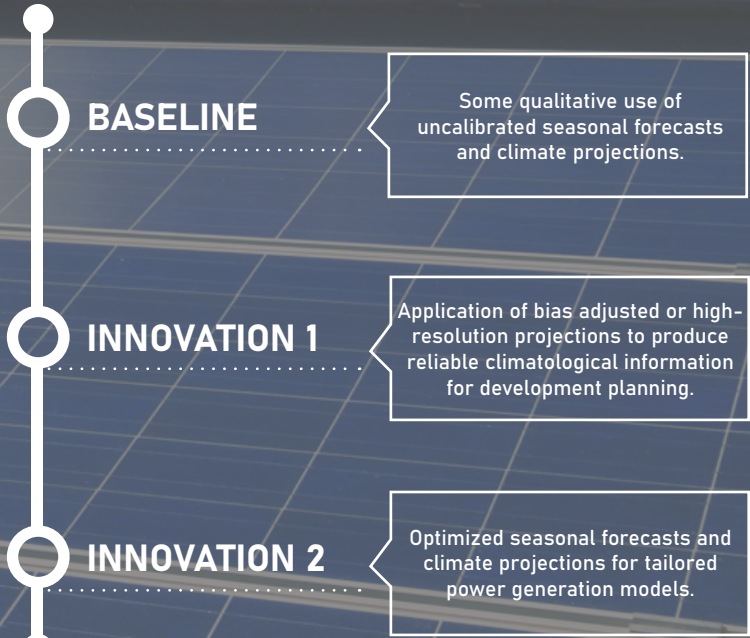
2 Incorporation of seasonal forecast data into the existing TANESCO production forecast model.

## CLIMATE SERVICES

## THE TEAM



RESEARCH	SERVICE PROVIDER	END USER
	 TANZANIA METEOROLOGICAL AUTHORITY  World Energy & Meteorology Council	



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