



Udaya Sekhar Nagothu
Professor and Director (International Projects)
Bioforsk, Norway
ICID, 2014, Gwangju, S.Korea



ClimaAdapt: Overall goal and objectives

Main Goal

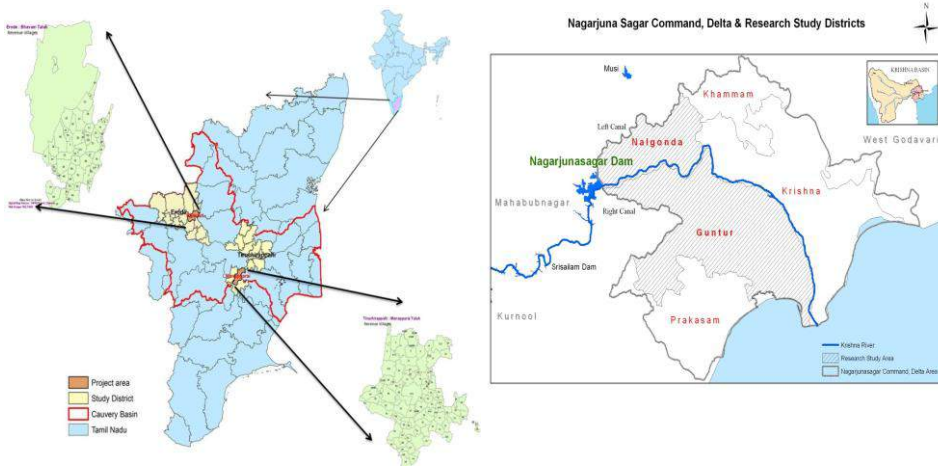
- to contribute to the **improvement of adaptive capacity of stakeholders and farmers** through development of appropriate adaptation measures. (www.climaadapt.org)

Objectives

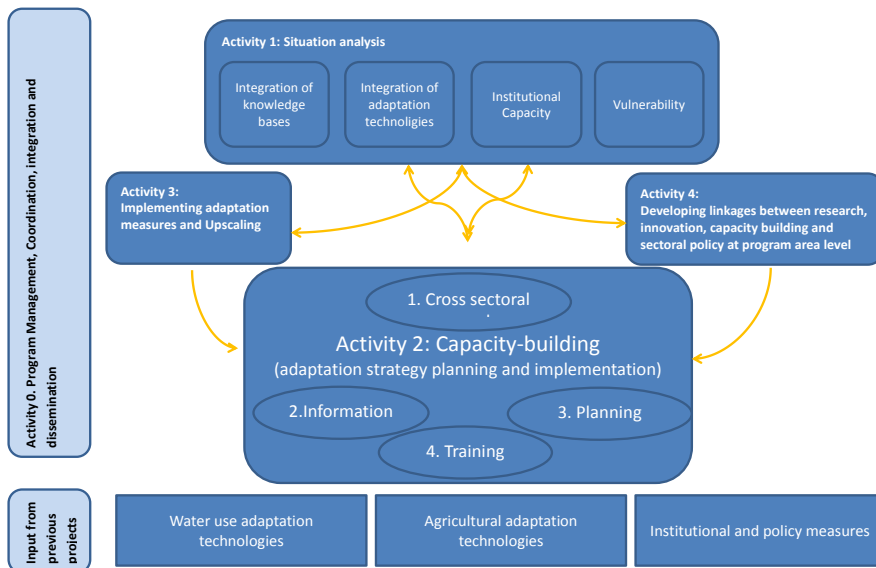
- To carry out **Situation Analysis** (climate and hydrology scenarios, vulnerability, preparedness).
- To under take **capacity building** of selected stakeholder groups (Department of Agriculture, Irrigation, farmers)
- To validate most promising **climate smart agriculture** technologies in clusters of farms and **up scaling of the technologies**.
- To strengthen the link between research, innovation and capacity building.
- To contribute to the climate adaptation **policy framework** .



Project areas: Tamil Nadu, Telangana and Andhra Pradesh



ClimaAdapt framework



Situation Analysis

- **Base line indicators**
 - **Future climate and hydrology scenarios**
- **Vulnerability mapping**
- **Current capacity: - technologies, institutions and policy**
 - **gaps indentified**
 - **needs determined**



Capacity Building

- **Capacity building needs assesement**
- **Capacity building strategy**
- **Training materials**
 - **Trainers orientation**
 - **Selection of trainees**
- **Measure training impacts and outcomes**

Other interventions:

- **Village Knowledge Centres**
- **On farm training camps**
- **Village campaigns**



Climate smart agriculture

- *Soil management measures*
- *Need based fertiliser application*
- *Improving WUE: new irrigation systems*
- *Cropping systems/ crop rotation/new crop varieties*
- *Alternate Wetting and Drying Irrigation (AWDI)*
- *System of Rice Intensification (SRI)*
- *Direct sowing of rice (DSR)*



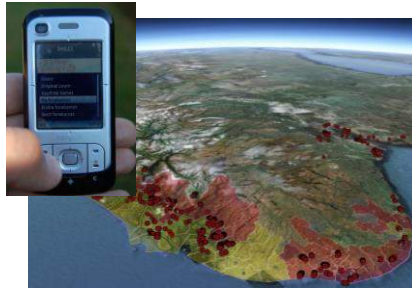
System of rice intensification

- *Proper land levelling*
- *Water management for intermittent irrigation*
- *12-15 day old seedlings for planting*
- *Plant single seedling /hill with a spacing of approx. 20-25x20-25 cm*
- *Proper weed management using conoweeder*
- *22% increase in yield and 25% water saving compared to paddy rice*
- *Less methane emissions (8 mg/m²/hr) in SRI compared to paddy rice system (13 mg/m²/hr).*
- *Constraints: Labour intensive; Other GHGs*

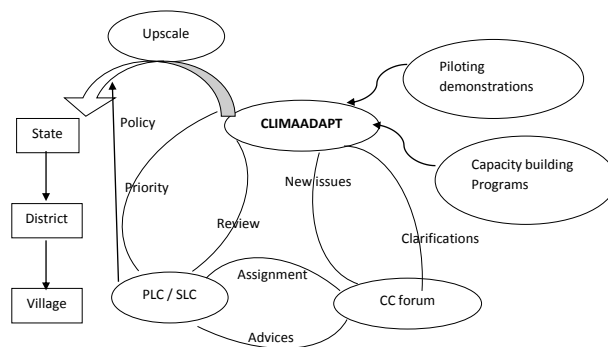


Pest and disease forecasting services

- *Agro -Meteorological Service, LMT*
- *A decision support system for warnings and prognoses for pests, diseases and weeds in important agricultural crops.*
- *Main objective; Reduced risk and correct/precise use of pesticides.*
- *Open/free for the public at www.vips-landbruk.no or vips.bioforsk.no*
- *Customized pest and disease forecasting services on farmers mobiles for selected rice pests and diseases using daily data from AWS (VIPS)*



Framework for upscaling



Salient features

- **Establishment of stakeholder advisory committees (SAC) involving highest policy makers**
- **Linkage with ongoing government programs and upscaling of results from the program**
- **Wider dissemination /national workshops/news papers/ other media**
- **Science-policy linkage through SAC and policy inputs**
- **Multidisciplinary approach.**
- **Innovative networks/climate cell**
- **www.climaadapt.org**

