CCKN-IA & its relation with NMSA:

The CCKN-IA project aligns with the objectives, structures, strategies, interventions and outcomes of the National Mission for Sustainable Agriculture (NMSA), formulated by the Ministry of Agriculture (MoA), Government of India (GoI) for enhancing agricultural productivity especially in the rain-fed areas. Deriving its mandate from Sustainable Agriculture Mission under the National Action Plan on Climate Change (NAPCC), NMSA focuses on integrated farming, water use efficiency, soil health management and synergising resource conservation for dry-land agriculture.

Project interventions:

The project interventions include assessment of existing agricultural information/ knowledge flow at the national level, in the pilot states and to develop a technology platform for exchanging knowledge/ facilitation through capacity building. It also aims to establish an institutional mechanism for knowledge exchange around climate change adaptation.

The major activities include:

A. Assessment of existing agricultural information and knowledge flow at the national level and in the pilot states/districts

Strengths and weaknesses of the existing agricultural knowledge and information systems are analysed in the pilot states and districts with the purpose to use the strengths and hence to develop a robust, effective, timely, authentic, and sustainable knowledge network. The assessment identifies localised needs and challenges around climate change adaptation and develops focused strategies to bridge the knowledge gap.

B. Establishment of an "entity" (e.g. consortium) to operate the CCKN-IA

An "entity" or network of suitable institutions (public-private-civil society and communities) to develop and operate the CCKN-IA on a pilot basis is formulated. This facilitates active participation of various key stakeholders like knowledge partners, technology partners and extension partners to generate and effectively disseminate climate change adaptation technologies and practices.

Consortium Facilitating Agencies are identified in each state to facilitate collaboration and linkages with various partners at the State level.

C. Training and Capacity development: CCKN-IA strengthens the capacities of existing extension systems and the related stakeholders for effective dissemination and adoption of localised climate smart practices by farming communities. The project envisages mainstreaming efforts to create cadres of accredited trainers on climate change adaptation.

Expected Outcomes of CCKN-IA:

- An innovative technology framework for CCKN-IA is available
- Institutional setup for sharing information to operate the CCKN-IA is supported at national, state, district/block level
- Capacity building measures of different stakeholders to operate CCKN-IA network is carried out
- Farmers in the pilot districts are trained and logistically supported to use the agricultural information provided by CCKN-IA
- Enabling policies and institutional mechanisms to scale-up and operationalise the CCKN-IA on the national level are identified and analysed

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Climate Change Knowledge Network in Indian Agriculture (CCKN-IA)

Ministry of Agriculture, Government of India

german cooperation
DEUTSCHE ZUSAMMENARBEIT

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Climate Change impacts in Agriculture

Agricultural systems are sensitive to extreme climatic events. The recent report of the Intergovernmental Panel on Climate Change (IPCC) concluded that increased frequency of heat stress, drought and floods negatively affect crop yields and livestock beyond the impacts of mean climate change. Unfortunately, small-scale and marginal farmers, dependent on largely rain-fed agriculture, often bear a disproportionate burden of climate change.

Droughts, floods, delayed monsoon onset, intermittent dry spells, and heat waves – symptoms of changing climate – leads to disruption of agricultural activities causing considerable distress. To mitigate this, farmers find it necessary to adapt and adopt new technologies so as to maintain economic, environmental and social sustainability. Effective information exchange helps address farmers' request for authentic information in a timely manner.

It is crucial to revamp the existing Agricultural Knowledge and Information Networks (AKINS) and make it more dynamic and relevant to all stakeholders (policy makers at national and state levels, extension agents, intermediaries, and farmers, etc.).

- Increase in extreme weather events such as floods, droughts, cyclones and heat waves will adversely affect agricultural productivity
- Droughts in 2000 and 2002 affected nearly 11 million in Odisha
- In 2009, late arrival of monsoon and erratic rainfall affected over 5.7 million Ha
- Increase in temperature by about 2 degrees reduces potential grain yields
- Reduction in yields owing to climate change would be more pronounced for rain-fed agriculture
- India has about 85% of marginal and small farmers and over 60% of them rely on rain-fed agriculture
- Climate change will impact food security, livelihoods and put a stress on natural resources

Introduction

The project "Establishment of Climate Change Knowledge Network in Indian Agriculture" (CCKN-IA) of the Ministry of Agriculture is implemented with support of the German Development Cooperation (GIZ).

The objective of the CCKN-IA programme is to develop a robust network of knowledge for the stakeholders in three selected Indian states on a pilot basis. This network of National and State level consortia aims to facilitate a two-way flow of communication enabling sharing of data, solutions and relevant information to the different stakeholders at various levels. CCKN-IA is geared at increasing the efficiency and effectiveness of public and private resources

and improving the service delivery of both. The project has a twin-pronged participatory and partnership approach whereby it forms a multi-institutional "entity" (e.g. consortium) of most relevant partners, converging their strengths and expertise with appropriate capacity development measures.

The project started in September 2013 and has two phases:

– Inception phase

– & Implementation phase of three years

The phase-wise project timeline would ensure participation of all stakeholders throughout its course.

PROJECT PARTNER:

Ministry of Agriculture,
Government of India

OTHER KEY PARTNERS:

Department of Agriculture in three partner states, agriculture universities, agriculture management and extension, training institutes, krishi vigyan kendras, meteorological service agencies, self-help groups, farmer groups, rural youths, krishak mitras, model farmers, non-government organisations and private companies.

Project Core Strategies

- Leverage the diverse expertise and integrate the agriculture knowledge and information systems on climate change adaptation through ICT solutions
- Strengthen and build on the existing mainstream agricultural extension systems thereby improving their effectiveness and efficiency in promoting climate resilient agriculture, especially for small holders
- Promote active participation and engagement of all stakeholders primarily the farming communities

A total of about

300

villages are being covered under the CCKN-IA project.

Project locations:

The CCKN-IA is being implemented in three states – Jharkhand, Maharashtra and Odisha on a pilot basis in 6 districts.

1. **OPERATIONAL AREA IN JHARKHAND:**

   East Singhbhum District with Boram and Patamda Blocks and Ranchi District with Angara and Ormanjhi Blocks

2. **OPERATIONAL AREA IN MAHARASHTRA:**

   Ahmednagar District with Nagar and Rahata Blocks and Pune District with Junnar and Velha Blocks

3. **OPERATIONAL AREA IN ODISHA:**

   Dhenkanal District with Dhenkanal Sadar and Kankadahad Blocks and Ganjam District with Chhatrapur and Sanakhemundi Blocks.