

Stakeholders Capacity Needs Assessment Report: Case Studies in Agriculture, Telengana State

INDIA



Developed by:
The Energy and Resources Institute (TERI)

Table of Contents

1. Introduction.....	3
2. Approach for the Capacity Needs Assessment.....	4
3. Application of the tool.....	5
Case A: Climate Proofing State Interventions.....	5
Case B: Resilient Agricultural Households (RAHs) through adaptation to climate change	6
Synthesis of existing processes and institutional capacity needs in RAH	7
CASE C: Intervention under National Innovations on Climate Resilient Agriculture (NICRA)	9
Synthesis of existing processes and institutional capacity needs in NICRA	11
4. References:.....	16

Introduction

Assessing the capacity needs requirement of stakeholders within the Institutional design of interventions is crucial to understand the stressors and enablers to the implementation of adaptation interventions in the country. Taking cognizance of the same would not just enable better Monitoring, Evaluation and Learning (MEL) of the interventions but also allow for enhanced transparency and reporting of climate action within the country.

India is one of the most vulnerable countries to be affected by climate change. Increasing climatic variability presents challenges to already vulnerable natural and human systems within the country. Almost all sectors are of importance in this regard to India, with impacts varying from one region to the other. There are interventions that already exist with the potential to contribute to adaptation as well as new interventions that are being planned keeping in mind adaptation to climate change.

Under the *Initiative for Climate Action Transparency in Adaptation (ICAT-A)*, Capacity needs assessment is one of the overarching requirements to be able to formulate a framework through which one can trace the pathway of an / adaptation-centric programme in such a way that M&E happens to an extent that it feeds back into the whole process. Since in India, most adaptation related programmes are either part of an on-going developmental initiative and very few have recently been introduced separately as standalone ones, no effective evaluation programme is in place to keep a check as to whether they are running as mandated. There are gaps in understanding the progress of such projects in terms of reducing the risk from climate change. This presents the challenge of understanding the nature of risk that is likely, interventions planned and delivered and their contributions to reduction of risk. Vij et al (2017) identified that long term adaptation planning should ideally encapsulate the key characteristics of; institutional flexibility, adaptive nature, scalability and reflexivity. It talks about the ingrained flexibility to change, scale up and integrate from other sectors, in not just the institutional design but within the policy document itself. Such a consistent evolution of an adaptation planning policy also requires a consistency in understanding the changing requirements in capacities of its multi-layered stakeholders. The importance of any adaptation policy or intervention also hinges on it defining a clear institutional design that throws light on the flow of responsibilities and accountabilities, adequate financing at each level of stakeholders and more so at level of implementation which often are deficient in policy capacities (Phuong et al, 2018).

This tool is a step towards assessing the capacity needs requirements of different stakeholders involved with the programmes at different levels to assess the challenges during execution, how to effectively address the same and to effectively report on the transparency of the programme in a way that assures the programme is adaptive, scalable and reflexible.

For India, a case study approach was chosen in order to identify the adaptation interventions to be studied. This was a result of a series of rigorous stakeholder engagements with representations from policy makers (national and subnational governments), think tanks and academia.

We identified three broad types of adaptation planning fitting scales of both state level and of national level. The intent was to understand how the capacity needs differ across the stakeholders at different levels in the identified case studies.

Case A: Climate Proofing State Interventions	State Led Intervention. Scale is limited to the state level.	Study Area: Telangana
Case B: Resilient Agricultural Households (RAHs) through adaptation to climate change	Scale is limited to State level.	Study Area: Telangana
Case C: Intervention under National Innovations on Climate Resilient Agriculture (NICRA)	Centre-State Led Initiative. This intervention is scaled up across the country.	Study Area: Telangana

Approach for the Capacity Needs Assessment

In each of the three case studies, key stakeholders at crucial levels were identified. A one-on-one interview was conducted with them using the *Capacity Needs Assessment Tool*. The tool identifies 4 broad parameters to assess the stakeholders on with the purpose of gauging and assessing the existing strategies, M&E frameworks, financial and managerial mechanisms in place and the gaps identified therein. Taking cognizance of these crucial aspects will greatly help in structuring a mechanism to have in place reporting on transparency of adaptation actions in the country.

The broad domains for assessment of capacity needs as identified by ICCAD in the template shared were;

1. Aspirations and Strategy: To understand the strategy and the long term strategies of each of the key stakeholders within the larger ambit of the intervention/ case study in consideration. This helps identify whether it flows with the mission and the vision of the case study chosen. This comprises of the following sub-domains;
 - Mission, vision and goals
 - Overall Strategy
 - Funding Model
 - M&E framework
 - Financial allocation for M&E

2. Human Resources: To understand the current make at each stakeholder level. This domain aims to understand the capabilities, knowledge and skills and the leadership qualities at each stakeholder level. The sub domains under the same are;
 - Leadership quality
 - Staffing levels
 - Knowledge and technical skills
 - Access to training and capacity building initiatives

3. Systems and Infrastructure: To understand the current systems, infrastructural facilities and processes in place at each stakeholder level .This included the following sub-domains;
 - Decision-making framework
 - Financial operations management
 - Inter-functional coordination
 - Knowledge management
 - External communication
 - Information and communication technology (ICT)
 - Gender and social inclusion

4. Organizational Assets: to understand the asset base in terms of skills and aptitude that each stakeholder has and which will help in developing the mechanism for transparency reporting at the case study or intervention level. The sub-domains are;
 - Understanding of issue, context and role of relevant stakeholders
 - Partnerships/network development and fostering
 - Local community presence and engagement
 - Policy influence

Application of the tool

The tool uses a scale of 1-4 to rate the important stakeholders at each level against each of the aforementioned domains and sub-domains. This was done for each of the three case studies (A,B and C). In the sections below highlight the sub-domains where the stakeholders in each case study expressed facing gaps/challenges while assessing their own capacity needs. A detailed table with the complete capacity needs assessment for each of the stakeholder interviewed is provided in the Annexe.

Case A: Climate Proofing State Interventions

In a country like India where developmental concerns are paramount to policy framing, Dubash et al(2018) states that it is crucial that climate change be closely integrated with developmental policies. This has to be done in a way that the policies reflect the cognizance taken of vulnerabilities born off or exacerbated by climate variabilities and not simply as an afterthought. Jorgensen et al (2015) states that the multi level climate governance structure that India has, gives an extent of

autonomy for the sub national government i.e. the states, which makes them '*crucial in the implementation of national goals, regulatory frameworks and incentive systems*'. It also underlines the fact that the states '*go beyond as simple implementers of top-down approaches*' but also experiment with interventions to suit their state specific requirements. Integration of an otherwise disjointed efforts by various departments and line ministries in a state will aid not just better and more inclusive implementation of intervention but will also help in devising a better functioning MEL framework suited to a specific state requirement.

Case A aims to study Climate Proofing of State Programs and Schemes in the Indian state of Telangana, keeping in mind Adaptation co-benefits. The methodology involved shortlisting of an intervention and identifying the key departments in its implementation. Adaptation centric interventions are massive and have multiple components under one programme/ scheme. The intent with the case study is to identify which institution in the state (Telangana) needs to be strengthened to improve the progress in the implementation process of the various actions, evaluated in terms of funding, infrastructural needs, capacity building of human resources etc.

Case B: Resilient Agricultural Households (RAHs) through adaptation to climate change

The Resilient Agricultural Households (RAH) project sanctioned under the National Adaptation Fund for Climate Change (NAFCC) is a Centre-State collaborative initiative where the funding source is from the Centre (national government) but the nodal agency is a state Machinery. The project aims to enhance the livelihoods (income and nutrition) of the farming community in targeted villages of Mahbubnagar district, Telangana through implementation of climate resilient agricultural interventions across the study area. RAH has well-defined project objective and rationale. A stakeholder analysis of the program gives the following table;

Stakeholder	Role of Stakeholder
National Bank for Agriculture and Rural Development (NABARD)	Financing
Environment Protection Training and Research Institute (EPTRI)	Executing Agency, Research Institution, Training and Capacity Building
Department of Agriculture (DoA)	Planning and Implementation
International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)	Research Institution
Professor Jayashankar Telangana State Agricultural University (PJTSAU)	Research Institution

Farmers	Beneficiaries
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Synthesis of existing processes and institutional capacity needs in RAH

Environment Protection Training and Research Institute (EPTRI)

EPTRI is the executing entity within the stakeholder framework of the RAH. The director general is at the apex, followed by the project in-charge i.e. the scientist, a project faculty, a technical assistant. It is also supported by 2 advisors – one for technical advisory and another advisor for policy directions. There is an internal monitoring committee at both the EPTRI level as well as the project monitoring level. At EPTRI level review meetings are held regularly by the DG with the staff. At the project level, the review committee is called the Technical advisory committee (TAC) and it has the other technical partners (ICRISAT, PJTSAU, DoA) in the composition. TAC reviews the project progress and devices action plans (monthly, quarterly, half-yearly) whenever the need arises for implementation purpose and accordingly appraises the team. EPTRI submits a progress report, utilisation certificate and monthly status of field level implementation, every quarter to the Apex Implementation agency i.e. NABARD.

Guidelines are prepared at the beginning of the project - stating the roles and responsibilities of the TAC, how these are to be conducted, how to move forward. These guidelines are detailed in a written document that is distributed amongst all the partners including NABARD. There is also a Government Order (GO) which states that the project has to be monitored by the *District Collector*, which means that the district administration has direct control on the project. There is a District Project Level Review Committee at each of the three districts where the project is implemented and the *District Collector* of each district is the Chairman of the said committee. Both the TAC and the District level committee are required to have periodic meeting at least once a month. The final review committee is at the State level. So monitoring happens at all levels - at state, district and at project level which follows a clear cut monitoring performance. NABARD, the implementing agency, also has a separate monitoring framework to map out the progress of the different components of the project. Once the project is completed, a third party evaluation will follow. So a 3 level M&E framework is followed- Internal, by NABARD and third party evaluation. How do the observations at the field level make their way to the policy?

The staff at all levels, starting from the Commissioner of Agriculture to the *Village Mandal Officer*, are well acquainted with the required skill and knowledge set regarding the project objectives and aim. Depending on the project components being handled by the stakeholder, for e.g. EPTRI deals with inception workshops in the field so the staff at EPTRI is well acquainted with what inception workshops are, how they are to be held, who are to be invited and why etc. There is regular capacity building for stakeholders, this is conducted by the other technical partner (PJTSAU).

The resource requirements of the project is accounted for in the vision, mission and the plans. Since the project is well planned with budgetary allocation for each component, the need was not felt for additional funding sources (over and above the lot sanctioned under the NAFCC). One unexpected budgetary requirement which came as a need/ requirement from the farmers was to increase the subsidy from the 50% as stated in the project. For this purpose, additional funds were raised from the state government to be able to provide additional 25% subsidy.

The capacity needs assessment exercise with EPTRI highlighted two broad domains where gaps were identified

- **Aspirations and Strategy**

Financial allocation for monitoring: This component was given a score of 3, the reason being that while a well-structured monitoring performa is in place along with monitoring committees at internal level (state and district), NABARD and the third party M&E, there is no specific budgetary allocation for the M&E component.

- **Systems and Infrastructure**

Inter-functional Coordination: This component was also scored 3. While there is substantial coordination with the different programme component entities, intermittent glitches are felt and there is scope for improvement since a 100% system is not in place.

Department of Agriculture (DoA)

The DoA is one of the key stakeholders under the Resilient Agricultural Households programme being implemented across three districts in the Indian state of Telangana. It is identified as a 'High interest' and 'High Influence' stakeholder responsible for providing technical inputs at the planning phase of interventions and therefore responsible for introducing schemes that have a direct bearing on the welfare of farmers. As part of the TAC of the programme, DoA is part of regular meetings that are conducted regularly and which sees involvement of other stakeholders (NABARD, EPTRI, ICRISAT, PJTSAU,). The progress, challenges faced and road ahead are discussed, decisions taken and thereafter disseminated effectively. As part of a well formulated and structured programme, there are existing mechanisms in place that the DoA follows not just for decision making and dissemination but even for the utilisation funds disbursed. The hierarchical structure requires the need for any change to be put forth to NABARD through EPTRI. This is what also what, according to the said stakeholder, ensures efficient coordination within the organisation and across the other partners within RAH programme. As a key stakeholder responsible for devising and formulating pertinent schemes under the RAH, documentation is a key part of the process requirement. The development of a knowledge management system is in pipeline, which will aid in dissemination and communication with relevant stakeholders.

The capacity needs assessment exercise with DoA highlighted three broad domains where gaps were identified

- **Aspirations and Strategy**

Mission, vision and goals: While the Mission, vision and goals are already defined in the Detailed Project Report (DPR), a separate document entailing the strategies is absent. The DPR is a highly technical document which the officers at the field level find difficult to understand the true essence of it. This requirement to provide more granular information in a de-jargonised way in order to increase its use-ability at the field level, has been put forth by the DoA to EPTRI.

Overall strategy: While there is a policy document (DPR) in place outlining medium to long term plans and strategies, there are no short term plans in place. The only existing document is the DPR.

Monitoring framework: The M&E framework in place in the RAH programme puts the national implementation agency, NABARD, responsible for monitoring. It was felt at the DoA level that regular supervisions, checks and measurements need to be in place.

Financial allocation for monitoring: There is no separate funding allocation to the DoA for the purpose of M&E. The department had expressed the requirement for separate funding allocation for such purposes in order to aid a convenient and hazard free meeting of goals and targets.

- **Human Resources**

Staffing for M&E: DoA, which is responsible for the implementation and devising of schemes for the farming households, does not have a dedicated staffing unit for M&E.

Access to training and capacity building initiatives: While the RAH programme provides for Training and capacity building activities at all the levels, there is a need for scaling it up. Frequent trainings are required.

- **Systems and Infrastructure**

Information and communication technology (ICT): There is a requirement of updating the existing hardware and software. Connectivity in the interior villages remains an issue.

CASE C: Intervention under National Innovations on Climate Resilient Agriculture (NICRA)

NICRA, launched in 2011 by the Ministry of Agriculture and funded by the Ministry of Finance is a network project of the Indian Council of Agricultural Research (ICAR). It is therefore a Centre funded and Centre initiated intervention which receives funding under the National Mission on Sustainable Agriculture of MoA, introduced with the purpose of using strategic research and technology demonstration for enhancing the resilience of Indian agriculture to the exacerbating climate variability. It covers sectors crucial to livelihood in rural India, namely; crops, livestock, fisheries and natural resource management.

NICRA is a structured project with well-planned and defined objectives at every level. The program itself runs on a 5 year plan basis with defined plans (including the organisations involved, the deliverable and regular monitoring and evaluations) for all the four components under which the program is structured, namely:

- 1) Strategic research on adaptation and mitigation
- 2) Technology demonstration on farmers' fields to cope with current climate variability
- 3) Sponsored and competitive research grants to fill critical research gaps
- 4) Capacity building of different stake holders

The budget allocation happens as per the targets and activities envisaged for organisational entities responsible for each of the above mentioned components. The plan is revised every 5 years by a High-level Monitoring Committee (HMC) which comprises of the leadership of NICRA and are at the helm of decision making for each of the 4 components of the program. The HMC is responsible for monitoring the programme at a macro level.

Apart from the HMC, there is also a Zonal Monitoring Committee (ZMC). The chairman of the ZMC is decided by Director General of ICAR, who is an external member equivalent to the rank of a Retired Vice Chancellor of an Agricultural University. The Director of ATARI acts as the Co-Chairman to the ZMC. The nodal officer in ATARI is the member secretary. Apart from Chair and Co-Chair, the ZMC has 3 members; (a) Director Extension of the representative agricultural university of that zone (Director extension is the nodal person for extension of all the agriculture related technologies). The other two members include; (b) Nominee of director CRIDA (S/he will look at the deliverables of the monitoring visits and guide CRIDA) and; (c) nominee of Deputy Director General of ICAR (Nodal person for NICRA). This team visits all the KVKs, visit experimental/demonstration fields, interact with communities and make necessary suggestions. **This is one mechanism of monitoring and evaluation within the NICRA framework.**

The key stakeholders under NICRA are mapped in the table below;

Stakeholder	Role of Stakeholder
Ministry of Finance (MoF), Government of India	Financing
Ministry of Agriculture (MoA), Government of India	Executing Agency
Indian Council of Agricultural Research (ICAR)- Central Research Institute for Dryland Agriculture (CRIDA)	Financial management, Planning and Implementation
Agricultural Technology Application Research Institutes (ATARI)	Evaluation

Krishi Vigyan Kendra (KVK)	Capacity building and Implementation
Village Climate Risk Monitoring Committee (VCRMC)	Evaluation and Mobilising village communities
Farmers	Beneficiary

Being a national initiative, the outputs of NICRA once presented to the HLMC, feeds into various ministries and particularly the National Mission for Sustainable Agriculture. At a district level, the outputs under the programme by the various ATARIs have the scope of influencing the district level plans like the district level agricultural plans. There is a high scope for policy influence and formulation.

Synthesis of existing processes and institutional capacity needs in NICRA

Indian Council of Agricultural Research - Central Research Institute for Dryland Agriculture (ICAR-CRIDA)

ICAR-CRIDA is identified as a 'High interest and high influence' stakeholder within the NICRA framework which functions within the ambit of financial management, planning and implementation of the programme. The decision making within the organisation (for NICRA) is structured one where the Director, CRIDA, takes the decision in consultation with the headquarters, which is then followed. These are then disseminated to ATARI, flowing down till KVK level.

One of the responsibilities of CRIDA being a research organisation is the generation of information to increase resilience to climate variable in areas crucial to rural livelihood. With access to all the research being generated by all the 40 research organisations under ICAR, there is an acute awareness within the organisation (CRIDA) about the need to work with more organisations to aid the dissemination of these technologies and tools to the communities.

The capacity needs assessment exercise with CRIDA highlighted one broad domain where gaps were identified

1. Aspirations and Strategy

Funding Model: Even with a centrally funded project, implementation can be improved if there are other parallel sources of funding that come in.

M&E Framework: There are monitoring committees constituted with well-defined roles and responsibilities. The monitoring committee visits all the implementation sub-units. Its basic job is to go, assess and make suggestions. It can take learning from the monitored and

evaluated information and can ensure that the learning goes back into the system and the gaps and challenges are addressed accordingly.

It was felt that the frequency of in-person monitoring can be made more frequent.

No dedicated staffing unit at implementation level for monitoring. Dealt with as part of day-to-day work.

Financial allocation for M&E: No separate allocated budget for M&E.

2. Human Resources

Knowledge and technical skills: The leadership/ top level management is well versed with the subject knowledge but there is a need for more training at the implementation level so that the staff at that level can understand the complexities of an adaptation intervention

ATARIs

ATARIs, as stakeholders within the NICRA are responsible for implementation. They act as the extension providers for the technologies that are developed by the scientists in ICAR-CRIDA, through participatory demonstrations of these practices/technologies on the field and generating learning in terms of what works and what does not. ATARIs support CRIDA at all levels and coordinate to ensure how best can KVKs implement according to the directions of CRIDA, and therefore are crucial to smooth inter-functional coordination within NICRA. There is good representation and participation from the community level i.e. the beneficiaries of the program through village level management centres, user groups, commodity groups, common interest groups etc. ATARIs ensure that the needs of the community get channelized onto the overall objectives of NICRA.

Since the program (NICRA) is a centrally sponsored program with 5 year planning frame, the activities at ATARI levels are well defined and clear and as part of government machineries, they are well versed with functioning within the mandate of a given program.

The leadership at ATARI level and above in NICRA, are part of the HMC and have representation and say in the proceedings of the HMC. The constitution of the HMC for NICRA itself necessitates adequate knowledge and expertise on the importance of climate change adaptation, climate resilient agriculture etc. ATARIs have separate financial allocation for M&E. In case of external monitoring, a committee is formed where all representatives will be present. Villages are monitored once in 2 years. Regular visits for to the project sights are accounted for in regular ATARI budget. ATARIs have been given additional support for M&E at KVK level. Independent assessments and internal assessments are in place for M&E. Third party assessments, through an open transparent bidding process, are done and these are more reliable thus accounting for transparency and credibility.

The capacity needs assessment exercise with the ATARI highlighted challenges faced in all the four domains

1. **Aspirations and Strategy**

Funding model: The disbursement of the financial allocation is top-down because of the very Central-make of the program. The budget within the program is fixed and ear-marked funds are released based on the demand. However, the release of budget by ICAR to ATARI is demand driven. This means that the source of funding within the program is single with no scope for accessing alternate funding mechanism.

M&E Framework: Yearly action plans are developed at ATARI level that compile the consultations from KVKs, climate risk management committees at village level and the beneficiaries (i.e. farmer groups). These action plans, based on formats given by CRIDA, encapsulate milestones and deliverables. While the evaluation and monitoring of the interventions happen mainly at the village level, ATARIs also have a monitoring system in place and this ensures uniformity of monitoring at ATARI level across the program. Half yearly review meetings are conducted before season, mid season and end of the season. Regular visits to the program sights are done by ATARI as well as NICRA and also by members from the HMC.

It was however also felt that the program, NICRA, needs to evolve from how it is today in terms of HRD etc. M&E at every level is very essential. It should also be noted that M&E means not just evaluation of the results but also of the targets set.

2. **Human Resources:**

Knowledge and technical skills: Upgradation of skill and knowledge is a continuous process and there is no formal process in place for the same. NICRA has not been able to support; there is no separate budget allocation for exposure visits or conferences at ATARI or KVK level.

Access to training and capacity building: Training and capacity building is non-existent at ATARI level and is limited to CRIDA level. It does not filter down to all the lower stakeholder levels and only 'relevant' information is shared.

There is a need for capacity building to happen in a more structured manner especially for ATARIs and KVKs. It needs to be more structurally implemented and needs be made a part of the strategy. Annual training plan should be there for all stakeholders. It was suggested that in the second phase of NICRA, trainings be conducted on climate adaptation and resilience in a more vibrant and inclusive manner

3. **Systems and Infrastructure**

Decision making framework: A broad organisational architecture is in place with well-defined roles and responsibilities and accountability. Formulation of action plans and the

decisions that are taken therein happen in a structured manner. While HMC, which takes broader program level structural decisions, has a participatory and representative make, there are delays in relaying or dissemination of decisions taken at higher level (CRIDA and above). A need/ requirement for a systematic process with guidelines and flexibility for the aforementioned were expressed. This would lead to increased and faster responsiveness and more efficient systems.

Knowledge management: There is complete documentation of processes followed at each level. Apart from annual reports, manuals, mid-season reports from KVKs, ATARIs also maintain a copy of database of all communication from CRIDA to KVK and vis-à-vis. However, there is no policy communication borne off this.

External communication: The only mode of external communication from the ATARI level are the annual reports. This was identified as a limitation by them.

ICT: Adequate access to necessary software and hardware were identified as a shortcoming by the ATARI. It was felt that the NICRA website needs to be made more dynamic to be able to reflect all the developments happening at the implementation level. Digitization is required and is an integral part. It was felt that climate information and best farming practises should be disseminated to the field level for which climate services need to be an integral part through ICT. Expressed the requirement/ need to move from old traditional ways.

ATARIs expressed interest in being knowledge partner in climate resilience through accumulation and dissemination of ground level knowledge through their own digital initiatives. KVK service application should also be developed. There is a need to adopt various mechanisms for reaching out to people.

4. **Organizational Assets**

Understanding of issue, context and role of relevant stakeholders: One issue faced is that directors keeps changing during the course of the program and there is no formal mechanism to re-orient the new directors to issues of climate adaptation and resilience. There is no formal training for getting acquainted with jargons, concepts and principles. *Annual training plans somewhat take care of all these.*

Policy influence: There is not much policy influence directly from the ATARI level. ATARIs deal more closely with the academia (universities) through KVKs that are based out of universities (some KVKs are cooperative initiatives). So, there is scope of policy presence.

Under the NICRA programme, the Krishi Vigyan Kendras have been identified as 'high Interest and High Influence' stakeholders. Similar to the other stakeholders within NICRA, KVKs also prepare annual plans (they have set vision, missions, targets and success stories). The strategies are already shared in the beginning of the project itself and are revised every year. KVKs undertake regular monitoring. Monitoring at this level directly follows the monitoring frequency by the ATARIs and the High level Zonal monitoring committees.

However, there is one person hired under NICRA who is responsible for M&E but also handles all the other components under NICRA for KVK. The approach towards M&E is more knowledge based through on-site learning. No separate training has been given for M&E. There is no separate Budgetary allocation for M&E within NICRA and they don't express need for the same. The total budgetary allocation within NICRA suffices

All the financial decisions are well documented by the KVKs. UCs are generated and have to be submitted before the end of financial year

The Inter-functional Coordination between all the seven departments within KVKs is good and weekly meetings are kept within the KVKs.

As its functional characteristics, KVKs document all learning and best practices from NICRA and make these available through reports and are also shared with other stakeholders like ATARI, media, farmers etc. There are multiple platforms for external communications with relevant stakeholders and actors. For example: through newspaper articles, farmer exhibitions , radio programmes etc.

Gender and Social Inclusion is particularly taken care off since there is separate budget provision under ICAR called the Schedule Caste Sub Plan. This was introduced and implemented in NICRA last year. KVKs design training programmes in a manner that maximises gender inclusion.

The capacity needs assessment exercise with the KVKs highlighted challenges faced in the following domains

1. **Human Resources:**

Access to training and capacity building initiatives: While the staff in KVK goes for regular training and capacity building activities, but this is mostly for other projects. NICRA does not budget for training and capacity building at KVK level.

2. **Systems and Infrastructure**

Decision-making framework: Any decision that is taken entails broad participation and the same is communicated effectively and regularly with stakeholders/agencies to whom the KVK reports and also to the last mile users that are the farmers.

ICT: While there are automated weather stations installed at village level, but the requisite software needed for weather based communication to famers was absent. The requirement/ need for aforementioned softwares was expressed.

3. **Organizational Assets:**

Understanding of issue, context and role of relevant stakeholders: At the KVK level, the roles and responsibilities of all the relevant stakeholders is known.

Local community presence and engagement: Involvement of local community through the VCRMC and CHCs is seen as a crucial element and very intrinsic to the success of NICRA.

Policy Influence: Learning and best practices documented by the KVKs make their way through peer reviewed journals, publications and brochures (channeled through CRIDA). This KVK has also published a book titled carbon balance that got recognized at the

Capacity Needs of KVKs can be narrowed down to:

1. Monitoring: The approach towards M&E is more knowledge based through on-site learning. No separate training has been given for M&E.
2. Information and communication technology (ICT): There is interest and need for access to latest softwares and technologies.
3. Capacity building: requirement for a structured and consistent plan as part of the programme strategy for capacity building at the extension/implementation level on key areas such as climate adaptation and climate resilient practices. Annual training plan should be there for all stakeholders.
4. Decision making framework: While decision making is a participatory process with representation of stakeholders from all levels, it was felt that the dissemination of the decisions taken is not timely. Need for a systematic process, with a certain level of flexibility, for the same to be kept in place.

References:

Vij, Sumit, et al. "Climate adaptation approaches and key policy characteristics: Cases from South Asia." *Environmental Science & Policy* 78 (2017): 58-65.

Phuong, Le Thi Hong, G. Robbert Biesbroek, and Arjen EJ Wals. "Barriers and enablers to climate change adaptation in hierarchical governance systems: the case of Vietnam." *Journal of environmental policy & planning* 20.4 (2018): 518-532.

Dubash, Navroz K., et al. "India and climate change: Evolving ideas and increasing policy engagement." *Annual Review of Environment and Resources* 43 (2018): 395-424.

Jørgensen, Kirsten, Arabinda Mishra, and Gopal K. Sarangi. "Multi-level climate governance in India: the role of the states in climate action planning and renewable energies." *Journal of Integrative Environmental Sciences* 12.4 (2015): 267-283.