



## Proceeding of Annual Review Workshop of NICRA KVKs

15-16 September 2023



Venue

ICAR-CCARI, Goa



Organized by

ICAR-ATARI, Pune, ICAR-CRIDA, Hyderabad &  
ICAR-CCARI, Goa

Agricultural Technology Application Research Institute Zone-  
VIII, Pune

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## Inaugural Session

The Annual Review Workshop of NICRA KVKs of Maharashtra, Gujarat and Goa, was co-organized by ICAR- Agricultural Technology Application Research Institute, Zone-8, Pune, ICAR- Central Research Institute for Dryland Agriculture, Hyderabad and ICAR- Central Coastal Agricultural Research Institute Goa from 15th to 16th September 2023. The Workshop was started with the inaugural programme on July 15th, 2023 under the chairmanship of Director, ICAR-ATARI, Pune, ICAR-CCARI, Goa and ICAR-CRIDA, Hyderabad. While interacting with the participants, he stressed on the importance of documentation and publication of KVK achievements which is of utmost importance in disseminating the technology and creating awareness and interest to farmers. During the workshop, the progress report of NICRA Project 2022-23 was discussed in detail and the action plan for 2023-24 was finalized. The workshop started with welcome address by Dr. Tushar Athare, Scientist (Agril. Extension) cum NICRA Nodal Officer, ICAR-ATARI Pune. In his welcome address Dr. Athare discussed about the outline of the two days workshop.



**Dr. N.P. Singh, Chairman, ZMC welcome by Dr. S.K. Roy, Director ICAR-ATARI, Pune,**



**Dr. S. K. Roy, Director ICAR-ATARI, Pune, welcome by Dr. Parveen Kumar, Director, ICAR-CCARI, Goa**



**Group Discussion in workshop**



**Group photo of all participants in workshop**

## Inaugural Session : 15<sup>th</sup> September 2023 at 10.00 am

Inaugural Session		
10.00 hrs	Arrival of Hon'ble Chief Guest, Special Guests and Dignitaries , playing of ICAR Song and Lighting of Lamp	
10.10 hrs	Welcome	<b>T.R. Athare,</b> Scientist (Agril Extension) ICAR-ATARI, Pune
10.15 hrs	About the programme	<b>Dr. S. K. Roy,</b> Director, ICAR-ATARI, Pune
10.25 hrs	Brief About NICRA-TDC	<b>Dr. J. V. N. S. Prasad,</b> Program Leader, NICRA-TDC, Hyderabad
10.35 hrs	Remarks	<b>Dr. S. D. Patel,</b> ADE, AAU, Anand
10.40 hrs	Remark	<b>Dr.R. B. Singandhupe,</b> Member , ZMC
10.45 hrs	Remark by Guest of Honour	<b>Dr. Parveen Kumar,</b> Director, ICAR-CCARI, Goa
11.00 hrs	Remark by Chief Guest	<b>Dr. N.P. Singh,</b> Chairman, ZMC
11.15 hrs	Vote of Thanks	T.R. Athare, Scientist (Agril Extension) ICAR-ATARI, Pune
	Rapporteurs	Dr. S.S. Digrase Head KVK Latur Mr. R.S. Dahatonde Head KVK Nandurbar

Inaugurating the Workshop, the Chief Guest Dr. N. P. Singh, Chairman, Zonal Monitoring Committee , while addressing the inaugural speech he asked to focus on small and marginal farmers and livestock production and emphasized the importance of varietal intervention. He emphasized the need for linkage among KVKs, line departments, ICAR Institutes and market.

Dr. Parveen Kumar, Director, ICAR-CCARI, Goa, informed that climate change is the biggest challenge in coastal region and focus should be on soil and water conservation technologies and use of ICT based solution.

Dr. R.B. Singandhupe, member Zonal Monitoring Committee, NICRA emphasized on the proper documentation based on farming system typology at farm and household level.

Dr. S.D. Patel, ADE, AAU, Anand, has emphasized challenges of climate change for the agriculture and the need for mitigation and adaptation strategies. He also advised efficient recycling of biomass.

Dr. JVNS Prasad, Program leader, TDC-NICRA, Hyderabad, urged KVKs to focus on integration of NRM, crop production, livestock technology at the household level.



The successful technologies should be disseminated on large scale in collaboration with line departments.

Dr. S. K. Roy, Director ICAR-ATARI, Pune while addressing his speech he underlined the salient achievements of NICRA Project. He asked KVKs to focus on unique technologies addressing the climate challenges in NICRA Village. He also informed that Custom hiring centers (CHC) are Climate resilient technologies in crop, animal and natural resource management are demonstrated by KVKs.

Tushar Athare Scientist ATARI Pune welcomed all the guests and H.R.C. Parbhu, Head KVK North Goa proposed vote of thanks. Around 25 participants including Heads and Senior Scientists of 11 Krishi Vigyan Kendras and ZMC Chairman and member participated and deliberated in the Workshop.



### Technical Session-I, 15<sup>th</sup> September 2023 at 12.00 PM

In this session four NICRA KVKs present their progress report of the year 2022-23 and Action plan 2023-24. The session chaired by Dr. Parveen Kumar, Director, ICAR-CCARI, Goa and Co-chairs were by Dr. R. B. Singandhupe, ZMC Member and Dr. AVM Subba Rao, Nodal officer, NICRA ATARI Pune. The KVK wise comments and suggestion given by Chairs and Co-Chairs are given below.

<b>12.00 hrs</b>	<b>Presentation by KVKs 4 (20+5 minutes each)</b>	
	Chair	<b>Dr. Parveen Kumar,</b> Director, ICAR-CCARI, Goa
	Co-chair	<b>Dr.R.B Singandhupe,</b> Member, ZMC <b>Dr. AVM Subba Rao,</b> Nodal Officer, NICRA, ATARI Pune
	Rapporteurs	Mr.Shailesh Deshmukh I/C Head KVK Ahmednagar-I, Mr. Pandit Wasre,SMS, KVK Jalna-I
	Presentation of KVKs (4)	Osmanabad, Banaskantha-I, Beed-I, Narmada
<b>13.40 hrs</b>	Remark of Chair and Co-chair	

### **KVK- Osmanabad**

- Replacement of Varieties is most impart of NICRA project.
- Breed name should be important at the time of presentation for more clarity.
- Should be focus on integrated farming System for more production
- Add atmospheric demand of rainfall for each crops in pretension.
- Check if any multiple stress variety for gram.
- Not focus much on diseases.

### **KVK-Banaskantha:**

- Utilized the full budget for smoothing of demonstration and implementing the NICRA project.
- Take initiation to create by pass fat in KVKs itself
- BBF technology is not suitable for shallow type soil
- Introduce hydroponics fodder production for small farmers.
- Take demonstriaon on transplanting o watermelon and muskmelon.

### **KVK- Beed-I**

- Use water evaporation losses and minimizes technologies in water pond
- Focus should be given on production of seed bank, fodder bank
- Involve NICRA farmers in seed processing.

### **KVK- Narmada**

- Increase the area under cultivation of pumpkin
- Focus on in situ and ex situ germ plasm conservation as tribal area is rich in biodiversity.
- DEE can collect germ plasm.
- Traditional local varieties have to be in-situ conserved and also grow at KVK farm and conserve these varieties.



- Register these varieties with PPV&FRA and submitted to NBPGR, New Delhi.
- Check 2-3 mango varieties along with Keshar
- Discuss the project cost estimates of 2023-24.
- Add new varieties of fishes in fishery unit



**Presentation by KVK Narmada and KVK Osmanabad**

**Technical Session-II, 15<sup>th</sup> September 2023 at 14.30 hrs.**

<b>14.30 hrs</b>	<i>Presentation on Annual Progress Report 2022 by 07 KVKs (20+5 minute discussion each)</i>	
	Chair	<b>Dr. S. K. Roy</b> , Director, ICAR-ATARI, Pune
	Co-chairs	<b>Dr. JVNS Prasad</b> , Program Leader, NICRA-TDC, Hyderabad <b>Dr. S.D.Patel</b> , ADE, AAU, Anand
	Rapporteurs	Dr. V. K. Poshya I/C Head KVK Narmada Mrs. V. K. Marwalikar, I/C Head KVK Osmanabad
	Presentation of KVKs (7) 20+5 min	Nandurbar, Jalna-I, Latur , Panchmahal, Dahod, Ahmednagar-I, North Goa
<b>17.40 hrs</b>	Remark of Chair and Co-chair	

In this session, 07 KVK from ICAR, SAUs, NGOs presented their Progress for the year 2022. KVK wise comments are given below.

**KVK- Nandurbar**

- Increase the processing of custard apple and banana
- Monitor the ground water for dam construction
- Focus on production of Banana, Papaya, drumstick
- Involve youth in custom hiring centre
- Involving needy farmers in capacity building program
- Capacity building program organized on climate resilience , skilling on equipment management
- Focus on impact and advisories.

- Check the ground water level of adjoining wells
- Try to prepare mineral mixture at KVK level
- Focus the activities which is climate resilient in NICRA Village

#### **KVK-Jalna-I**

- Introduce different enterprises in NICRA Village
- Napier grass var. DNH-6 replace with multiple cutting
- Add various components to face climate resilience.
- In presentation display economic return like net return and B:C ratio.
- Integrate all technologies at the household level.
- Discuss action plan with the farmers before finalization
- Give details about parameter are taken for subsoilers.
- Give details about animal like breed in farming system typology
- In achievement show results about water harvesting component
- Add silage preparation component in action plan



**Presentation by KVK Nandurbar and KVK Jalna-I**

#### **KVK-Latur**

- Give specify information regarding breed name which is distributed to farmers.
- Introduce new breed to farmers like, shrinidhi
- Check varieties for multiples stress resistance including drought, high rainfall
- Check old technologies adopted or disseminated in the project are continuing.

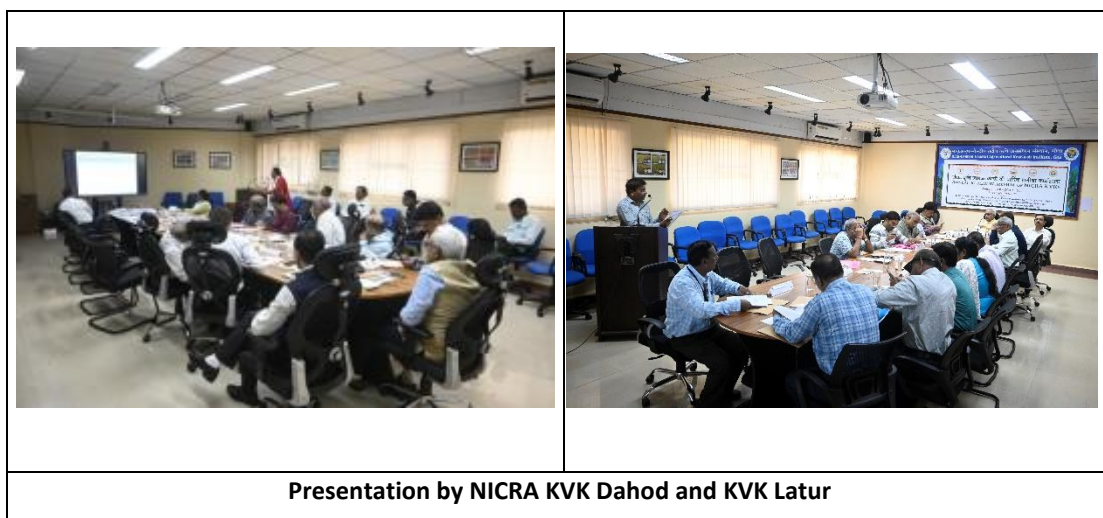
#### **KVK-Dahod**

- CFLD, FLD programmes do not included in NICRA activities
- Repair/renovation of water harvesting structure should be done in convergence with the department/programmes.
- Collect the literature from ICAR-CCARI, Goa for by pass fat and hydroponics





- Breed improvement can be taken up in animal component
- In demonstration of maize include high yielding composite variety.
- Research demand should go to researchers via DEEs
- Goatary is popular in Dahod
- Check by pass fat rates given for milch animal



### **KVK-Ahmednagar-I**

- Net return is to be added in rainfed with animal in NICRA village slide.
- KVK should focus on major technologies addressing climate change
- Scale up all the technologies which have been taken up
- Conduct demonstration on insitu water conservation in cotton.
- KVK should increase activities under Technology dissemination with more focus on NICRA technologies

### **KVK-North Goa**

- Create shelter to reduce heat wave, temp and protection from rainfall for backyard poultry and goat.
- KVK should be convert rice damed to seed production
- IIVR variety can be taken
- Goatary can go for elevator platform using arecanut
- Value addition of Jack fruit, pickle preparation
- Bring 2-3 crops in seed chain
- Involve women farmers in NICRA village
- Increase budget upto 10 lakh for 2023-24

- Zero tillage can be used for cultivating cowpea in rice fallow.



Presentation by NICRA KVK Ahmednagar-I and KVK North Goa

### Common Instruction/suggestion to all KVKs

- NICRA action plan has to be approved by concerned DEE, then only it should be finalised
- Give more focus on seed bank, fodder bank during dry spell
- Budget estimation for implementing the NICRA activities should be in between 5-10.00 lakh or below 10 lakh.
- Explore funding from other departments also for to implementing NICRA activities more effectively.
- Conduct seed production programme of desi local and indigenous varieties at KVK level as well as on farmers field.
- Introduce multi stress varieties in NICRA programme
- Attention to the font size and colour combination while preparing and presenting the slides.
- Monitoring of NICRA village should be continued after completing the programme.

### Technical Session-III, 16<sup>th</sup> September 2023 at 9.00 hrs

9.00 hrs	<i>Presentation on Base line survey by 04 KVKs,</i>	
	Chair	<b>Dr. N.P. Singh,</b> Chairman, ZMC
	Co-chair	<b>Dr.R.B Singandhupe,</b> Member, ZMC <b>Dr. JVNS Prasad,</b> Program Leader, NICRA-TDC, Hyderabad
	Rapporteurs	Head KVK Banaskantha-I, Head KVK Dahod
	KVKs	Narmada, Jalna-I, Ahmednagar-I, Nandurbar
	Presentation of KVKs (4) 30+10 minute discussion each	
11.40 hrs	Remark of Chair and Co-chair	



In the fourth session, four KVKs presented their baseline survey viz., three KVKs from Maharashtra, i.e. Jalna-I, Nandurbar and Ahmednagar-I and one KVK from Gujarat, i.e. KVK Narmada., KVKs wise suggestion are given by below.

#### **KVK Narmada**

- The climate vulnerability is heat wave, with no crop insurance and animal insurance.
- Low use of chemical pesticides and low literacy rate.
- 78% of the cow population is indigenous and should be conserved.
- Suggestions from the chair were that the indigenous plant materials which were shown in the slides and other than that also, whatever are present in that district, should be collected. The seeds of those indigenous plant materials should be collected and should be sent to NBPGR.
- Women farmers are to be involved by forming of SHG self-help groups.
- Work on water conservation technology by forming check dam, etc.
- KVK should conserve and maintain paddy and pigeonpea local germ plasm and maintain at university, send to NBPGR, and PPV & FRA.
- Check for forest right given to tribal people
- KVK should be shown their base line survey report to DEE of NAU, Navsari
- KVK should use indigenous breed of cow
- Increase area under rabi cultivation
- Weather information to be taken from the village
- KVK should focus on water conservation technology

#### **KVK Jalna-I**

- Step wise detailed survey was presented of village Pokalwadagaon
- Climate vulnerability, is drought spell and shallow aquifer of only 50 to 70 feet.
- Seasonal migration of masons is seen and the community is majorly of general category.
- Literacy rate is 82% in males and 90% in females.
- Crop insurance has been taken by 182 people and livestock insurance by 42 people in the village
- KVK should be focus on enhancing water storage in NICRA Village

- Cultivation of crop should be based on water availability
- Data sheet of individual typologies to be collected
- KVK should be prepared net plan of individual farmers



Base line survey presentation by KVK Narmada and KVK Jalna-I

### **KVK Ahmednagar-I**

- Presented base line survey of NICRA Village Khadakwake.
- Climate vulnerability is drought and occasional fogging in the village which especially affects onion crop.
- Each and every household has a dairy animals.
- KVK should be focus on animal feeding, water and fodder production
- Focus on community based farm pond
- 74 to 75 percent of the area is rainfed and in horticulture grape and pomegranate are the predominant crops.
- Maize fodder is taken up in all the three seasons and dairy enterprise is very strong. The crop insurance is only 135 in number while the livestock insurance is 220 in number.
- Ahmednagar district alone provides for 20% of the milk production of the entire state.

### **KVK Nandurbar**

- Khatni village. Majorly it's a tribal village with 926 households.
- Climate vulnerability is drought and under horticulture, mango, custard apple, mango are the predominant crops.
- Migration of farmers up to 50 numbers is observed and they migrate to Surat district in Gujarat.



**Base line survey presentation by KVK Ahmednagar-I and KVK Nandurbar**

### **Common Instruction/suggestion to all KVKs for base line survey**

- The baseline survey data should have around 30 years of weather. Survey data of individual typology should be included. Based upon the improved baseline survey, the new action plan or improvised action plan should be prepared and then submitted to CRIDA through respective Directorate of Extension Education.
- In individual typologies or Farming System Typologies- income of agriculture and animal husbandry data should be collected separately.
- A part of the budget of ATMA is supposed to go to KVK as per rule, So this has to be informed to the respective DEE, so that they can take it up further.
- All KVKs should work on enhancing water storage in all NICRA villages.
- Local language questionnaire should be prepared and then survey should be conducted. In general, questionnaire should have three parts. The first part should have the entire geographical data of that village. The second part should have the general production of animals and different crops. And in third part it should be the weather data.
- PRA, RRA methods should be used for conducting of baseline survey.
- Farmers should be spoken to and if need be old people of the village should be spoken to. It is recommended to speak to old people because what they know, the younger people may not know. They should be asked about what was there in their time and old structures or facilities like drainage system which was there and is no more. Women farmers should be involved by forming of self-help groups.

- Water conservation should be done by constructing check dams.
- All the indigenous plant materials, whatever is available should be collected by every KVK, should be collected and sent to NBPGR.
- Jalna KVK is involved in watershed harvesting and farmers should be recommended crops based on the water availability constraint. Based on the availability of September, October rainfall, farmers should be recommended Rabi crops.
- Research paper and policy paper to be developed from NICRA Project.
- DEE, KVK, ATARI and CRIDA to be involved in research paper
- Maharashtra region to five region wise policy paper to be developed
- Online meeting in 20 days time for presentation of data on base line formats
- Publish a book on NICRA research paper
- All KVKs should be recruitment of SRF and use for data collection, paper writing
- SRF should be prepared action plan for 1 week.

### **Valedictory Session: 16<sup>th</sup> September 2023 at 12.15 hrs**

<b>Time</b>	<b>Programme</b>	<b>Speakers</b>
<b>12.15 hrs</b>	Rapporteurs Report	Rapporteurs
<b>12.30 hrs</b>	Overview of the Workshop	<b>Dr. S. K. Roy,</b> Director, ICAR-ATARI, Pune
<b>12.40 hrs</b>	Remark	<b>Dr. JVNS Prasad,</b> Program Leader, NICRA-TDC, CRIDA, Hyderabad
<b>12.50 hrs</b>	Remark	<b>Dr. R. B Singandhupe,</b> Member, ZMC
<b>13.00 hrs</b>	Remark	<b>Dr. AVM Subba Rao,</b> Nodal Officer, NICRA, ATARI Pune
<b>13.10 hrs</b>	Remark by Guest of Honour	<b>Dr. N.P. Singh,</b> Chairman, ZMC
<b>13.25 hrs</b>	Remark by Chief Guest	<b>Dr. Parveen Kumar,</b> Director, ICAR-CCARI, Goa
<b>13.40 hrs</b>	Vote of Thanks	<b>Sh. H. R. C. Prabhu,</b> Senior Scientist and Head, KVK North Goa

### **Suggestion given by Dr. S.K. Roy, Director, ATARI, Pune**

- KVK should be prepared village map for presentation
- Program should be taken in water harvesting, conservation and storage
- Strengthen custom hiring centres with more implements
- Animal science components is very important
- Documentation in terms of video film should be prepared by each KVKs



- KVK should be focus on climate resilience technology give preference
- Increase NICRA centres in the zone
- Revised action plan to be sent to CRIDA for final approval
- Automatic weather station can be included in the program from CRIDA side.

### **Suggestion given by Dr. Parveen Kumar, Director, CCARI, Goa**

- First draft should come from KVK for research paper
- Intergrate all interventions at high level
- Share video with all NICRA KVKs



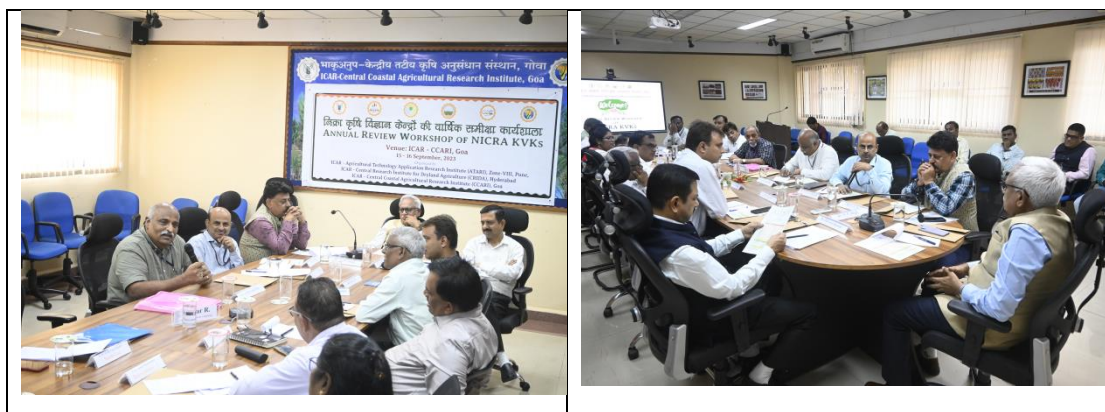
Discussion in NICRA Workshop

### **Suggestion given by Dr. JVNS Prasad, Program Leader, NICRA-TDC, Hyderabad**

- KVK should be introduced multiple stress tolerant varieties
- KVK should be shown NICRA performance to district administration and take permission to adopted technology to large number of farmers.
- Vetting of the program by DEEs and then CRIDA
- Integration of technologies to be integrated at high level
- Quantification of impact of technologies
- Crop cutting experiment to be adopted for NICRA interventions
- 1-2 technologies to be taken on seed level.

### **Suggestion given by Dr. AVM Subba Rao, Nodal Officer, NICRA, ATARI Pune,**

- KVK should be provided agro met database to CRIDA.
- Hand holding to new KVKs



### Suggestion given by Dr. N.P. Singh, Chairman, ZMC, ATARI, Pune

- KVK should be focus on resilient activities
- KVK should be manage natural resources like water and soil
- Cultivation of horticulture and vegetable crop for regular money
- KVK should be think of multiple stress management
- KVK should be selected location specific crop
- Increase linkages with line department and other
- Involve administration, public representative in the program
- KVK should be focus on video film and publication
- KVK should be mobilization of fund
- Conserve native species germplasm, in-situ conservation and submit to NBPGR, New Delhi
- Apply for PPV& FRA award
- KVK should be prepared week wise action plan



### Field Visit to NICRA Village, 16<sup>th</sup> September 2023 at 14.15 hrs

On 16<sup>th</sup> September, 2023 the ZMC committee (Dr. N.P. Singh, Chairman, ZMC, Dr.

R.B. Singandhupe, Member, ZMC, Dr. S.K. Roy, Director, ICAR-ATARI, Pune, Dr.





Parveen Kumar, Director, ICAR-CCARI, Goa, Dr. AVM Subba Rao, Nodal Officer, NICRA, ATARI Pune, Dr. JVNS Prasad, Program Leader, NICRA-TDC, Hyderabad, Mr. T.R. Athare, Scientist (Agril Extension) ICAR-ATARI, Pune) visited Mayem, Bicholim, NICRA village of KVK- North Goa. The primary purpose of these meetings was to interact with farmers on climate-resilient agricultural practices such as new techniques, technologies, and approaches that can help them cope with changing climate conditions. The discussions on local weather patterns and their impact on agriculture, demonstrations of innovative farming methods were discussed. This meeting also served as a platform for farmers to provide feedback on the effectiveness of NICRA interventions and help in planning future activities. Emphasis was given to soil and water conservation practices. The committee also interacted with NICRA Kulagar farmers and discussed the activity taken up and further action plan for that particular typology.



**Field visit to NICRA Village Mayem**