NICRA *News*

Monthly e-Newsletter on Climate Resilient Agriculture

August 2012

NICRA
National Initiative on Climate Resilient Agriculture

Vol.1; No.11

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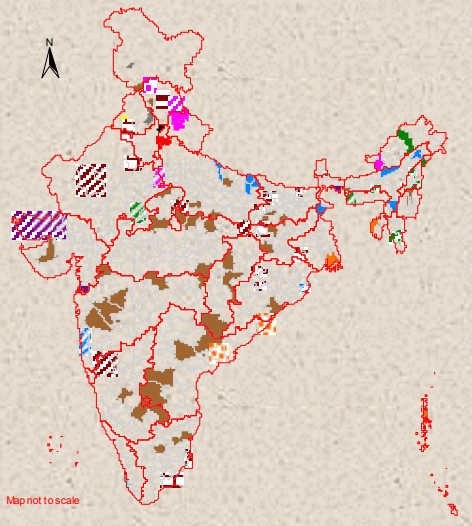

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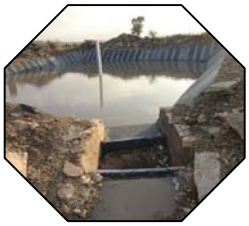
From the Research Front

During the month two important meetings were held at the partner institutes one each at IIHR (first week of the month) and NDRI (last week of the month), to review the progress of work and discuss plan of work for the XII Plan. All the Co-PIs of Strategic Research Component of different ongoing themes at IIHR participated in the review. During the review experiment fields were visited and a stock of progress on development of major facilities like Phenomics, CTGC and FATE was also reviewed. The visiting team also interacted with the scientists involved in various experiments in the projects at IIHR. Some of the significant outcomes of the meeting are to study staggered flowering behavior along with physiological disorders in relation to climatic variability in flowering phenology of mango; to emphasize NRM aspects in all themes and to link the outcomes of experiments with weather parameters; to prevent yield loss, savings in water, fertilizers, pesticides; to work on molecular markers for abiotic stress tolerance; to develop allometric equation for mango and geo-referenced map of mango for the country; to include onion and chilli under NICRA for XII Plan; to conduct all basic work on controlled climatic conditions using Phenomics, CTGC and FATE, etc., in the mandate crops at IIHR and to convene a meeting of relevant ICAR institutes working on mango, onion & garlic and banana.

The NDRI review meeting was mainly to finalize the procurement of important equipment like animal calorimeter and the experiments planned by making use of the equipment. The issues in procuring this crucial equipment were discussed and a roadmap was arrived at to expedite its procurement and installation. This being the state-of-the-art equipment will strengthen the capacity of the system to take up experiments related to livestock vis-a-vis climate change.

B. Venkateswarlu
Director, CRIDA

From across the KVKs




In a way this month saw revival of monsoon in many parts of the country generating new hope at least for rabi season. It also brought floods in many parts of Andhra Pradesh, Rajasthan and Assam. By and large, the rainfall deficit with which most districts were suffering was more or less made up. Despite this, some districts have seen no improvement in the siguation what-so-ever, particularly in north interior Karnataka and parts of Maharashtra. It was painful to see vast stretches of lands in Bijapur distirct of Karnataka without any crop.

Nevertheless, this revival has raised the hope of reasonably good inflows into major reservoirs of the country. This also has ensured that the fear of the hydrological drought has mostly been abated. During the month, a new initiative was started to bring the TDC work of core NICRA partner institutes into review mechanism. Although the technology transfer division/units of the 7 core partner institutes are implementing technology demonstration component, a comprehensive view of how the core institutes are addressing climate variability concern was not available. During a meeting held at IIHR during the first week of the month, a stock of the progress was taken and several important implementation decisions were arrived at. Besides, it also provided an opprotunity for the participating core institutes to know each others work and build on the strengths of other institutes.

Dr.K.D.Kokate, DDG (Extn.) visited the NICRA village Gunja in Gumla district, Jharkhand and evinced keen interest in the progress of the project. He interacted with the farm families to get their feedback. Such visits by the leaders of the programme give strength and credibility to the initiatives of NICRA.

This issue of the *NICRA News* also features climate resilient practices initiated across several KVKs in areas such as fisheries, natural resource management through community initiatives, water efficient agriculture in Sunderbans, hortipasture development, fodder development etc. I hope readers will get a flavour of the diverstiy of activities addressed by this programme and will enrich the knowledge base of the project by providing their constructive feedback.

Sreenath Dixit
Coordinator
Technology Demonstration Component

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Review of TDC implementation by core partner institues

A meeting was convened at IIHR, Bangalore during 7 & 8 August, 2012 to review the progress of TDC component being implemented by Core partner institutes of NICRA. The meeting was jointly chaired by Director, IIHR and Director, CRIDA and was attended by the Nodal scientists of TDC implemented by the Core institutes. Each of the participating institute presented the progress of work and action plan for XII FYP. This meeting gave an opportunity to take certain important decisions on the strategy of TDC implementation with respect to sites, technologies and project team. Followed by this, the project team visited the field on the second day where IIHR is implementing its TDC.

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NICRA Farmer Honored

Progressive farmer shri Umashanker Sharma of Barodi village where NICRA project is being implemented by KVK Datia was honored by Dr. Ram Krishan Kushmaria, Minister of Farmer welfare and Agriculture Development Govt. of Madhya Pradesh on the occasion of Foundation Day celebration of Rajmata Vijeraje Krishi Vishwa Vidyalaya, Gwalior on 19 August, 2012. Dr. V.S. Tomar Hon'ble Vice Chanceller of RVSKVV, Gwalior, Dean, Directors, scientists, farmers and students were present on this occasion. (farmer's photo) & percolation pond photo (Datia)

Shri Sharma has been an active participant in the NICRA project and is motivating his fellow farmers in the NICRA village. One of his significant contributions to the project is agreeing to part with a portion of his land to dig a percolation pond which in turn is helping to recharge the groundwater in the village. He is using the harvested rainwater for protective irrigation for kharif crops in case of long dry spells and for pre-sowing irrigation in rabi season. Besides, he has also taken up fish production in the pond. He has also setup a model of efficient recycling of farm waste by installing a biogas unit the slurry from which is used to produce vermicompost.

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Farm ponds used for fish production in Gondia

NICRA project is being implemented in Katangtola & Chandanitola villages by KVK, Gondia in Maharashtra. As part of the natural resource management interventions, farm ponds are being promoted for rainwater harvesting by individual farmers. Once, sufficient water was harvested in these ponds, the KVK in consultation with the local fisheries department consulted the farmers and advised them to make use of the farm ponds for fisheries as well. A mix of fingerlings of Rohu, Katla and Mrugal were released in the farm ponds. A total of four farmers have come forward to participate in fisheries production. (photo)

Fish producer in farm pond
Shri Pritlalji Dhekwar,
Shri Devanand Hirapure,
Shri Shravanji Lilhare,
Shri Chikhlonde

Pond size: 30m x 30m x 4m
No. of fish/pond: 1000
Time of release: Aug. 2nd fortnight

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Farm bunding helps increase cropping intensity

Krishi Vigyan Kendra, Durgapur, Amaravati district, Maharashtra is implementing NICRA project in Takali (Bk) village. Due to lack of any conservation measures the rainfed lands in the village are prone to soil erosion by runoff. Further, farmers were also not following simple practices like ploughing and sowing across the slope. Keeping this in view, the NICRA project promoted these practices and strengthened it by laying field bunds across the slope. This activity has led to prevention of soil erosion to a significant extent besides improving moisture availability. Farm bunding also increased water level in nearby open wells by two feet which has helped in cultivation of rabi season crops like chickpea followed by fodder maize in summer. Thus, a comprehensive intervention involving simple practices like ploughing and sowing across the slope and field bunding had a compounding effect in providing water and fodder security for the farmers.

Sri Sanjay Sawalkar a small farmer owning 1.2 ha land who adopted these simple practices could also observe the increase in water level in his open well with which he could take three crops in the sequence cited above. This resulted in an increased income of Rs.64,000/- during last year.

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Barren lands on their way to becoming green in Bilakundi

Dr Sreenath Dixit, Coordinator, TDC along with Dr.Manoranjan Kumar, Sr.Scientist (SWCE), visited village Bilakundi village in Gokak taluk where NICRA is being implemented by KVK, Belgaum, Karnataka. The major highlight of the interventions is creation of a source of irrigation to bring a vast tract of barren land into a horti-pastoral system. This intervention aims to cover over 130 ha of barren land (which is highly undulated and not fit for crop production) to convert into a horti-pasture block by digging trench cum bunds across the slope in this area. This is being supported by developing an irrigation system in which water is being lifted to a tank specially constructed at the highest elevation. This water is proposed to be redistributed using drip irrigation system under the influence of gravity. Currently, water is being sourced from a perennial open well located beside a passing canal. The static storage of this well is about 1000 m3 of water. Water from this well is lifted to a cemented tank of dimension 20mX10mX2m having a capacity of 400 m3 which is located at a vertical elevation of 60 m through a pipeline of 1.5 km. The pumping is done using 10 hp motor which provides discharge of 6 lps. The irrigation system has been designed such that it could operate at the pressure equivalent to 2-8 m gravity. The designed irrigation system is sufficient to irrigate about 5000 saplings at the spacing of 10mX10m. However the irrigation system is yet to be installed by providing distributaries to the cemented tank, only after which is planting of saplings is possible. The plan is very sound and can be realized only after all the 88 participating farmers take up planting of horticultural species on their farms. So far, farmers have been reluctant to take up planting due to poor monsoon. However, the need of the hour is to motivate them to actively participate by contributing their share (through labour or inputs like pipelines) to the intervention.

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