

# KISAAN RAJA- COMPLETES THE WHOLE CYCLE



*(A unique demonstration-cum-exhibition - May 24<sup>th</sup> 2011 to 8<sup>th</sup> June 2011)*

## KISAAN RAJA – COMPLETES ITS CYCLE AT JALNA

The vision of the Plastindia Plasticulture Committee (PPC) to take to field the model of KISAAN RAJA which aimed at reaching the farmer right at his doorstep has gone through an entire crop year. The activity which began in May 24<sup>th</sup> 2011 at Jalna District has undergone an entire cycle and all factors of the model have been witnessed during this period.

The agenda of the model was “To create a platform across India, to conserve water, increase productivity, increase income and raise food security, through use of Micro Irrigation Systems in agriculture thereby conserving precious natural resources like water and encouraging the larger community of farmers to a healthier and wealthier living”.

How the activity unfolded during May – June 2011 has been covered in issue 31 of Plastindia Foundation house Journal. This article dwells on what has been the progress since, and the extent to which the model has performed as compared to what was envisaged. The demo plots installed at the 9 villages at Jalna was as under:

Village	Taluka	Drip Company	Crop(s)
Varudi	Badnapur	Kriti Industries	Chilli, Ginger
Shelgaon	Badnapur	John Deere Water	Cotton
Pagirwadi	Ambad	Kisan Irrigation	Cotton
Antarvelidai	Ghansanghvi	Netafim Irrigation	Cotton
Ghetuli	Jalna	Finolex Plasson	Cotton
Shreshti	Partur	Jain Irrigation	Cotton
Meskheda	Manta	EPC Irrigation	Cotton

Hivrakabli	Jaffarabad	Jain Irrigation	Cotton
Chandaitombri	Bhokardan	Vishaka Irrigation	Turmeric

### **FIRST PHASE - MONITORING OF PROGRESS AT THE DEMO PLOTS**

From the date the demo plots were put up at the 8 Talukas across the district of Jalna they have been monitored for progress. The first signs of the impact of the model was seen when farmers across the district decided to go in for drip intervention soon after the KISAAN RAJA exhibition. The initial progress at the demo plots was probably good enough to convince these farmers on the advantages of micro irrigation and water conservation techniques. This had been observed in some villages and soon was seen across the district. This class of farmers who readily accepted drip intervention has been significant and the area they have taken under drip is an average of 2 acres. (See Chart 1).

<b>DRIP SYSTEMS INSTALLED AT JALNA SOON AFTER KISAN RAJA ACTIVITY</b>		
<b>Taluka</b>	<b>No. of Farmers</b>	<b>Acres</b>
Badnapur	600	1,200
Ghansawangi	700	1,500
Ambad	1,000	2,000
Jalna	2,000	4,000
Mantha	700	1,500
Jafrabad	1,500	3,000
Bhokardan	1,000	2,000
Partur	800	1,600
<b>Total</b>	<b>8,300</b>	<b>16,800</b>

**CHART -1**

The turnout of visitors at each of the demo plot has been very encouraging and every farmer in whose field the demo plot was set up, encouraged his fellow villagers and also from nearby villages to check and see the development on the demo plots. The whole activity was being done through the help of the Farmers Club of NABARD in the village, hence the village participation also has been substantial.

The monsoon at the district and the region was inconsistent during the crop year. This led to a fact that farmers would see a lower yield this year, as some crops (especially cotton) were damaged due to the nature of monsoons. Jalna, amidst the heartland of the Marathwada region, is predominantly cotton growing area and it was hence the best crop to monitor and compare while compiling the progress at the demo plots. There has been significant progress in terms of yield on demo plots where crops other than cotton were taken up. But, with cotton, the yield could be compared to the field next to the demo plot, which makes the compilation even more noteworthy.

### **PERCIEVEABLE DIFFERENCE IN YIELD**

From September 2011, there has been a perceivable difference in the yield at the demo plots. The difference observed was the height of the cotton crop – in comparison to the nearby plots which were flow irrigated. The first difference observed by farmers was the time to irrigate the plot was 15% of the time it took to irrigate plots of similar size. The irrigation was through pump sets installed. During the monsoons even though there was a concern for the cotton crop being damaged, it was not so at the demo plots witnessed through the growth of the crop. In the middle of a low height crop it was distinct to see cotton crops at the demo plots average a 4 to 5 feet difference in height. This obviously meant that the first crop was around the corner (in a couple of months) and the usage of bore well water was also minimal. Cotton buds blooming around were a common sight during this period.



**Demo Plot in September 2011 – Pagirwadi Village. Seen below is the crop at a nearby non-drip field**



**Demo Plot in September 2011 – Antarvali dai Village. Seen below is the crop at a nearby non-drip field**





This progress at the demo plots was observed by several farmers from all the villages and the nearby villages which led to a lot of buzz around the demo plot seen during field visits. Each time there was a common meet of all farmers from the 9 villages, there was a common voice, what is the next step. It was a difficult phase as further plans on the model depended on NABARD and how they perceived the demo plots. The meets at NABARD HO were discussions on the natural fallout of the KISAAN RAJA activity. The support from Jalna District Manager of NABARD was reassuring but, the next stage seemed far away.

Not for the farmers though. They were inspired enough by the initiative and the discussions that were held during the common meets, that they began to deliberate among themselves and even act towards a common goal. The goal being, carrying drip systems to their own fields for the forthcoming crop season. For PPC the goal was to find a credible partner who could carry the next stages envisaged by the KISAAN RAJA model. Meets with NGOs' in the region did not go on for long, as most of the NGOs' were not keen to work on a model which had a "loan" component attached to it.

This continued till December 2011 when an NGO showed keen interest to pursue the program and pick up the ground level work for the logical course of KISAAN RAJA. This NGO Savitribai Phule Mahila Ekatma Samaj Mandal (SPMESM) has been keen to be associated with PPC and the KISAAN RAJA activity since the inauguration in May 2011. However, their organisation was not connected to NABARD and this was for quite a while the concern for the next logical steps.

In the meanwhile, the first harvest at the demo plots was completed in December 2012 and extended cotton crop (rattoning) was being experienced by farmers at the demo plots. This was possible only because there was water available for irrigating the crop which created quite a unique scene at the demo plots. The cotton crop was drooping, brown in colour but yet flowering with fresh cotton buds emanating - monitoring of progress continued at the demo plots.



**Extended Cotton Crop seen at Shelgaon – December 2011**



**Extended Cotton Crop seen at Meshkheda – December 2011**



**Extended Cotton Crop seen at Antarvali dai – December 2011**



**Cotton Crop harvest at Pagirwadi – December 2011**



**Cotton Crop harvest at Hirvakabli – December 2011**

### **NABARD COMES TO THE FOREFRONT**

There was a major reshuffle at NABARD – Regional Office at Pune and with the arrival of the new Chief General Manager – (Mr Ashok) and his outlook towards KISAAN RAJA activity took yet another turn. Jalna District Development Manager, Mr Khose sent a copy of the progress and the KISAAN RAJA activity brief to CGM – NABARD, RO. This led to a series of developments.

An urgent meet with PPC was called for and after learning of the KISAAN RAJA model and its logical course of action. At the meet, it was mooted by NABARD that an all NGO meet be held at Aurangabad where 29 NGOs' from the region participated and who were informed about the KISAAN RAJA activity and the logical extension program ie:- deployment of NABARD product Umbrella Program for Natural Resource Management – (UPNRM). Subsequently, only one NGO – SPMESM came forward and PPC partnered with this NGO through an MOU for the extension activity.

For 3-4 months the extension activity has been planned and after due scrutiny by NABARD, the NGO has become a channel partner for NABARD and now the platform is all set for the next stage of KISAAN RAJA, as envisaged.

## **DEMO PLOTS AND THE CROP YEAR**

The progress at the demo plots was continuously monitored for yield and in April 2012, the yield was quantified for sale. During the monitoring process farmers had indicated the quantum of yield they were expecting for the crop year. This was more out of their experience than exact quantity of the yield. When the final actual yield (Cotton crops mainly) at the demo plots were compared to the expected yield mentioned by farmers, there has been a 3% the average variance. This crop year, cotton prices were also lower than the previous year by almost 35%, but with a 486% average increase in yield, the demo plots highlighted the benefits KISAAN RAJA had set forth.

The yield at the demo plots are as follows:

<b>CROP YIELD AT DEMO PLOTS - CROP YEAR - 2012</b>					
<b>Village Name</b>	<b>Demo Plots Crop yeild - for the crop year (In Quintal)</b>	<b>Non-drip Crop yeild - for the crop year (In Quintal)</b>	<b>Difference in yeild (In Quintal)</b>	<b>% Difference in yeild</b>	<b>Rate procured by Farmers for their yeild</b>
Pagirwadi	30	5	25	600	3800
Ghetuli	16	3.5	12.5	457	3500
Antarvelidai	28	5	23	560	4100
Shelgaon	29	6	23	483	4200
Shreshti	18	4	14	450	3800
Meskheda	27	6	21	450	4100
Hivrakabli	24	6	18	400	
<b>AVERAGE INCREASE IN YIELD FOR THE CROP YEAR 486%</b>					
<b>LEAST RATE FOR COTTON CROP FOR THE CROP YEAR RS. 3500/-</b>					
Varudi (Chilly Crop)	13				
Varudi (Ginger Crop)	80				
Chandaithombri (Turmeric Crop)	98				

While monitoring the progress and also looking at the yield difference at the demo plots during the crop year, the actual benefits to the farmers in terms of increase in earnings were also analysed and also the residual income should the farmer have gone in for drip intervention at his own costs. The analysis has considered the costs of drip systems with the subsidy component.

<b>CROP YEAR - 2012 - EARNINGS V/S DRIP SYSTEM COSTS</b>					
<b>Village Name</b>	<b>Demo Plots Crop yield - for the crop year (In Quintal)</b>	<b>Rate procured by Farmers for their yield (Rs)</b>	<b>Total Earnings for the crop Year (Rs)</b>	<b>Cost of drip systems (less Subsidy) (Rs)</b>	<b>Income after investing in drip systems(Rs)</b>
Pagirwadi	30	3500	1,05,000	24000	81,000
Ghetuli	16	3500	56,000	24000	32,000
Antarvelidai	28	3500	98,000	24000	74,000
Shelgaon	29	3500	1,01,500	24000	77,500
Shreshti	18	3500	63,000	24000	39,000
Meskheda	27	3500	94,500	24000	70,500
Hivrakabli	24	3500	84,000	24000	60,000
<b>LEAST RATE FOR COTTON CROP FOR THE CROP YEAR RS. 3500/-</b>					
<b>AVERAGE EARNING AT NON-DRIP PLOTS - Rs. 17,750 V/S Rs. 86,000/- AT DEMO PLOTS</b>					

These indicators were perceived well by farmers across the district and there were as many as 2,100 farmers who had evinced interest for drip deployment for the forthcoming crop season. However, they were keen on a loan to move ahead in this direction. This was a factor envisaged by KISAAN RAJA model and the rights steps were taken to push the model towards the extension stage of KISAAN RAJA.

#### **THE NEXT PHASE - KISAAN RAJA AT JALNA**

As mentioned in the article on the **KISAAN RAJA activity** at Jalna in the earlier issue, the main objective of the activity was to promote micro irrigation to farmers at their own backyard and then leave it for farmers to decide whether there would be beneficiaries who wished to deploy micro irrigation systems for Natural Resource Management, which was to be an extension activity of KISAAN RAJA. From the list of farmer beneficiaries compiled across the Jalna district from the 8 talukas, 2 Talukas have been considered for the extension activity– which will be the first phase for deployment of the UPNRM product.

This extension activity project proposal was scrutinised by NABARD after a field visit by their officials where they visited four of the ten villages under the UPNRM project. After this field visit NABARD officials have urged PPC to document the whole activity and the model of KISAAN RAJA so that it could be taken up as a model project for UPNRM activity.





**Field Visit By NABARD officials at Shelgaon Village**



**Villagers at Shelgaon Village during NABARD officials field visit**



**Villagers at Pagirwadi Village during NABARD officials field visit**



### **Villagers at Mhatrewadi Village during NABARD officials field visit**

Shortlisting of farmer beneficiaries and their eligibility as per prescribed formats have been undertaken by PPC Partner on board for the extension activity SPMESM. The entire project proposal for UPNRM deployment and the loan plus grants to the PPC partner in the extension activity has been sanctioned. By August 2012 the UPNRM project at Jalna will witness the extension activity of KISAAN RAJA.

**600 farmers will have adopted natural resource management systems.**

### **FORWARD PATH**

KISAAN RAJA aim at being a catalyst between the farmer and technology is well established with this pilot project at Jalna. For the farmer, this technology is still a novelty carrying its own cost barrier. As a partner in natural resource management, NABARD brings to the model the financial arm which will enable the farmer cross the cost barrier. Through this pilot a medium has been established for effective deployment of NABARD product – UPNRM. The bond between PPC and NABARD has been fruitfully affected through KISAAN RAJA at Jalna. NABARD acknowledges this and is a willing partner for all future endeavours of PPC. PPC now plans to take this pilot in other states of India where the penetration of Drip Irrigation is less. Participation and support from all is most welcome.