



## CASE STUDY

"చిన్నారలకు చిరుధాన్యాలు"

INTRODUCING of  
NUTRITIOUS MILLETS *into*  
ANGANWADI CENTRES

VIKARABAD DISTRICT, TELANGANA

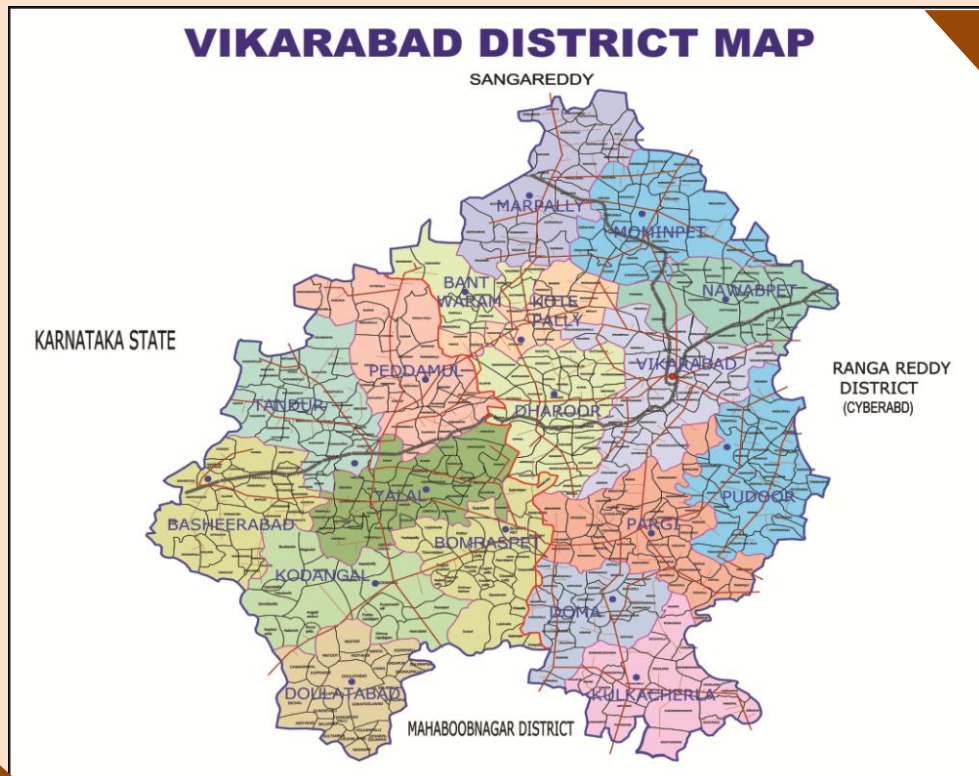


Azim Premji  
Philanthropic  
Initiatives



## ABOUT VIKARABAD DISTRICT

Vikarabad district was carved out of erstwhile Mahabubnagar and Rangareddy districts. It has 18 mandals and 501 villages. Population of the district is 9,27,150. The district is spread over an area of 3,386.00 square kilometres. It receives 690mm/ 781.5mm of rainfall in an year. Redgram, cotton, rice, maize, jowar, green gram and black gram are major crops. It is bounded by the districts of the district shares boundaries with Sangareddy, Ranga Reddy, Mahabubnagar and the state of Karnataka.



It is also one of the driest district and with more number of lambada hamlets in Telangana state.

Trends of cropping systems of Vikarabad district shows that Little millet (samalu), Foxtail millet (korralu), Finger millet (thydal/ raagulu), Sorghum (jonnal) and other millets were cultivated earlier. These millets are nutritious and require little water. Usually crops cultivated by the farmers are seen in the plates of the family. These crops played a important role in nutritional security of the households.

There is a drastic decline in area under millets; at present Sorghum and finger millets are cultivated in small pockets. Crops eroded from cropping systems and food basket too. Bringing millets back in farms and plates is important societal requirement, more so, in the dryland areas of Telangana.

## NUTRITIONAL STATUS & ICDS

About 13.3% of children below five years were severely malnourished in Telangana. A higher percentage of children were stunted and underweight in tribal concentrated districts and in the bottom level human development index (Human Development Report 2017 Telangana State).

Even in traditional millet consuming areas like Vikarabad District, children are fed with rice based menus in the Anganwadi Centers. Together with subsidized PDS rice this has resulted into large decline in millet



consumption; and, the diversity in food at home is also adversely affected. Such shift has large negative impact on health of children, women and society at large.

## ROLE OF FARMERS' COOPERATIVES - WHY KORRA & JOWAR ARE CHOSEN?

As a risk mitigation strategy, farmers' cooperatives promoted crop diversification by intercropping millets with pulses. They provided seed, arranged for buy back and set up decentralised processing facilities with support of WASSAN.

As the result of these efforts, area under foxtail millets area has increased to 700ac in Kharif 2016. Farmers' cooperatives & WASSAN have organised a field day and invited Dist collector. In this meeting, a proposal was made to explore creation of market for foxtail millet and jowar through introducing millets into ICDS, PDS. This triggered discussions which eventually led to pilot initiatives in ICDS & PDS by District Collector.

## PILOT ON INTRODUCING MILLETS INTO AWCS

As generational change must begin early with the children, District Collector of Vikarabad decided to engage mothers and children on the need to increase millet consumption through ICDS. A series of 3 millet food festivals were organized to finalise the menu and build consensus around the inclusion of millets in ICDS.

## RECIPES FINALISED FOR FOOD FESTIVALS

DWO & WASSAN worked on list of preliminary recipes through discussions with scientist from NIN. Through online NIN platform "count what you eat",



energy and nutritive values of the recipe were calculated to meet the standards. Thus preliminary menu consisting of Paddy rice + Korra rice and Sambar / dhal, Korra kichidi and Jowar upma were finalised.

## FOOD FESTIVALS

Children and mothers were fed with the millet recipes in food festivals. At the end, feedback was taken from members from the community, mothers, people representatives, anganwadi teachers, helpers and kids.

1. Overwhelming positive response from all stakeholders.
2. There was a broad consensus amongst all sections that millets are highly nutritious and should be adopted in anganwadi meals for the children on every alternate day in the week
3. Foxtail millet kichidi & jonna upma which had vegetables were finalized based on the feedback .
4. Training will be conducted for Anganwadi teachers and helpers to be conducted on preparing these recipes. Anganwadi teachers and helpers were willing put extra effort of preparing millet meals .
5. Resolutions was given by mothers committees to include the millets in AWCs.

## PILOT INTRODUCTION OF MILLETS IN AWCs

After the finalisation of the millet menus, stage was set for launching of the pilot. The pilot initiative on introducing millets into Anganwadis for

children was launched on the eve of Ambedkar Jayanti on 14th April, 2017. Anganwadi teachers, staff of the district Women and Child Development, Civil Supplies Departments and others, members of Farmers' Cooperative and several district officers participated in the event hosted by the District Collector, Vikarabad, Telangana in collaboration with



WASSAN. Sri M Jagadeeswar, Secretary, Women and Child Development and Director, Ms. B. Viziendra participated as special guests from the state. Joint Director, W&C, District officials, Anganwadi teachers and WASSAN team participated.

Ms. Divya D, Vikarabad District Collector narrated the process of selection of millet menus and overwhelming response and encouragement from mothers, children and Anganwadi teachers. Pilot program was taken up in 45 Anganwadi Centers in 3 Mandals in the district with about 1000 children. Millet meals will be served 4 times a week.

Shri M Jagadeshwar, Secretary & Ms. B. Viziendra, Director, Women and Child Development Department appreciated the timely initiative by the District Collector. She observed that this is an important program and must be extended to the nutrition programs for pregnant and lactating

women and adolescent girls who need good nutrition. They offered support to the District Collector to extend the program to cover and lactating women and adolescent girls after seeing the acceptance and results.

It was proposed that pilot would be tried for 3 months and based on the experience make necessary changes in the program and implement it for further 3 months or if satisfactory, District Collector will approach government for universalisation of introducing millet based food across the district.

## COST ESTIMATION

As rice is available for ICDS at a subsidized price of Rs.4 per kg. Millets are not covered under subsidy and hence millet meals have higher cost per meal. . The cost of normal rice based meal per child is Rs.6.13, the korra (foxtail millet) and Jonna Upma costs at Rs. 8.32 and Rs.10.39 respectively; with equal standard of energy and proteins but with enhanced micro nutrients and fiber. If subsidy is extended, then Millets based menus might even be cheaper or at par with rice.

| RICE BASED              |              |              |               |
|-------------------------|--------------|--------------|---------------|
| ITEM                    | QTY (GM/DAY) | RATE (RS/KG) | COST/DAY (RS) |
| Rice                    | 75           | 4            | 0.3           |
| Dhal                    | 15           | 70           | 1.05          |
| Vegetables              | 25           | 28           | 0.7           |
| Condiments              |              |              | 0.25          |
| Egg (30 eggs per month) | 50           | 3.5          | 3.5           |
| Oil                     | 5            | 59           | 0.33          |
| Cost per child per day  |              |              | 6.13          |
| Additional cost/ day    |              |              | 0             |

| KORRA KICHIDI           |              |              |               |
|-------------------------|--------------|--------------|---------------|
| ITEM                    | QTY (GM/DAY) | RATE (RS/KG) | COST/DAY (RS) |
| Korra + Rice (60:40)    | 65           | 50 & 4       | 2.06          |
| Dhal                    | 1560         | 100          | 1.58          |
| Vegetables              | 25           | 25           | 0.63          |
| Condiments              |              |              | 0.25          |
| Egg (30 eggs per month) |              |              | 3.5           |
| Oil                     |              |              | 0.33          |
| Cost per child per day  |              |              | 8.35          |
| Additional cost/ day    |              |              | 2.22          |

| JONNA UPMA              |              |              |               |
|-------------------------|--------------|--------------|---------------|
| ITEM                    | QTY (GM/DAY) | RATE (RS/KG) | COST/DAY (RS) |
| Jowar Rice              | 75           | 58           | 4.36          |
| Dhal                    | 13.33        | 100          | 1.33          |
| Vegetables              | 25           | 25           | 0.63          |
| Condiments              |              |              | 0.25          |
| Egg (30 eggs per month) |              |              | 3.5           |
| Oil                     |              |              | 0.33          |
| Cost per child per day  |              |              | 10.4          |
| Additional cost/ day    |              |              | 4.27          |

*For the pilot of 3 months covering 45 AWCs and 1000 children incurred 1.73 Lakhs as additional expenditure. This additional expenditure incurred for the pilot was met from the flexible fund given to the collector by the state government*



## OPERATIONAL PROCESSES ADOPTED IN ICDS PILOT

1. **Price fixation:** done by committee lead by DM, civil supplies by looking at the prices of markets and nearby reference markets. Farmers cooperative quoted the price to supply the korra rice and jowar ravva. Committee found that the price quoted by Farmers' cooperative is less than the others.

*"Agreement between DM, CS and Farmers Cooperative"*

2. **Quality standards:** DM, CS has given uniform specifications for Jowar mentioned in this link<sup>1</sup>. and Korra Specifications (Taken specifications from AP, MARKFED which was procured korra in Kharif, 2016 in Anantapur District) to cooperative

3. **Quality assessment:** Technical officer, civil supplies will visit the stock points, processing units and assess the quality, issues quality assessment report



4. **Procurement:** Procurement and processing of the Jowar/ foxtail millet can be done by farmers' cooperative. Cooperative has got credit from FWWB and NABFINS, with this cooperative met their working capital requirements

5. Technical officer, civil supplies will give training to procurement committee on quality specifications and assessment. Processed korra rice and jowar ravva will be transported to MLS point by Cooperative.

**Budgets:** District Collector has released the budget required for pilot to DM, Civil Supplies from the flexible fund given to the collector by the state government, in turn DM will do the payments to farmers cooperatives.

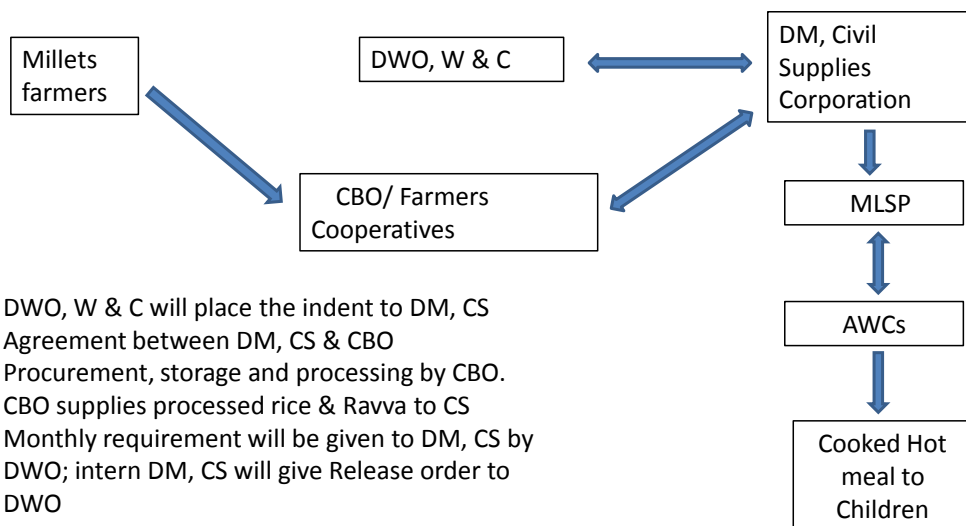
6. **Payments by dept of Civil Supplies**

- **Payment to farmers' cooperative:** Once stock reaches to MLS point, civil supplies dept had made the payment as per the purchase order to farmers cooperatives

- **Release Order:** Proceedings will be issued by concerned department officer. AWCs are lifting the millets i.e. korra rice and jowar ravva from MLS point as happening with rice.

<sup>1</sup> (<http://fci.gov.in/app2/webroot/upload/Quality/KMS-2015-16.pdf>)

## Schematic Diagram on supply of Foxtail rice & Jowar ravva supply to AWCs



1. DWO, W & C will place the indent to DM, CS
2. Agreement between DM, CS & CBO
3. Procurement, storage and processing by CBO.
4. CBO supplies processed rice & Ravva to CS
5. Monthly requirement will be given to DM, CS by DWO; intern DM, CS will give Release order to DWO
6. Stocks will be released to AWCs based on RO from MLSP

## DETAILS OF SUPPLIED KORRA RICE AND JOWAR RAVVA BY FARMERS COOPERATIVES

|              | Rs / Kg | Total Quantity supplied in Kgs | Total value (Rs) |
|--------------|---------|--------------------------------|------------------|
| Korra rice   | 60      | 2207                           | 132420           |
| Jowar rava   | 50      | 1598                           | 79900            |
| <b>Total</b> |         | <b>3805</b>                    | <b>212320</b>    |

## SCALING UP

Based on the success of the initiative, a district level scale up proposal was developed with WASSAN and submitted to Director, Women, Disabled and Child Development, Government of Telangana by District Collector. It has been given in principle approval. It is expected to be taken up shortly.

Sambar was added to millet menu based on the feedback from CDPOs, supervisors, AWCs teachers as children are love to eat kichidi and upma with sambar.

## OPTIONS AND BUDGETS

| Option  | Regular rice<br>Menu per child<br>/ day Rs.7.96 | Korra kichidi<br>Menu per<br>Child/Day | Jonna Upma<br>Menu per<br>child/ day |
|---|---|--|--------------------------------------|
| <b>OPTION - 1</b><br>Total regular menu (all 25 days only rice based menu)  | 25X7.96=Rs.199/<br>child/month                  | nil                                    | Nil                                  |
| <b>Option 1 Total budget: Rs. 199.00/ child/month</b>   |   |  |                                      |
| <b>OPTION - 2</b><br>1) 9 days regular menu<br>2) 8days korra kichidi<br>@ Rs9.9 /child/day<br>3) 8 days jonna upma<br>@ Rs. 11.06 /child/day | 9X7.96=71.64                                    | 8x9.9=79.2                             | 8x11.06=88.48                        |
| <b>Option 2 Total budget: Rs.239.32/child/month</b>   |   |  |                                      |
| Total no. Of AWCs   | 1107  |  |                                      |
| Total no. of children   | 16289   |  |                                      |
| Additional budget required; Rs/child/month  | 40.32   |  |                                      |
| Total additional budget required / month (Rs)   | 656772.48                                       |  |                                      |
| Annual additional budget in Rs  | 7881269.76                                      |  |                                      |
| <b>Annual additional budget in Lakhs</b>  | <b>78.8126976</b>                               |  |                                      |

Proposal is to expand it to 1104 AWCs. 59 quintal of korra rice and 111 quintal of jowar ravva is required monthly to serve millet food for 16 days out of 25 workings days in a month in a district. For that there is a need to procure 961Q korra and 1803 Q of jowar raw material required. To produce, korra crop and jowar crop have to be cultivated in 385ac and 720ac respectively in Rabi 2017-18

District collector has convened a meeting with farmers cooperatives and Department of agriculture officials in the district to prepare production plan and asked cooperatives to take the lead in it; District Collector said, district administration is there to support in establishing processing units and storage containers to take it up in entire district. It is expected that scale up initiative will begin soon.

## POLICY CONSTRAINTS

- There is overwhelming response from community to inclusion of millets in ICDS; but its mainstreaming is constrained by lack of a level playing field between millets & paddy rice/wheat.
- Rice is available to ICDS and other state nutrition programs at a highly subsidized rate of Rs.4 to 6 per kg. Replacing rice with millets in the

diet preparation entails purchase of millets at open market prices necessitating provision of additional budgets.

- Market prices of some of the millets are higher than MSP, as MSP for millets is kept very low. There is no regular state procurement of millets; the processes are not well established.
- Setting up a local procurement system and finding additional budget outside the regular ICDS programs becomes necessary to expand even successful millets inclusion programs.
- Farmers are not happy with MSP. Though Govt. announces the MSP for few millets, no procurement mechanism by corporations like Rice & wheat
- Need special focus to bring back millets into local production systems and consumption. No such comprehensive schemes are there
- Small millets are not covered in PMFBY.

