



# ICRISAT Happenings

Newsletter

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## Village Dynamics Insights

### Tracking pros & cons of dietary changes

Limited diet diversity is causing some vulnerable communities in India's drylands to suffer a double burden of both under and over nutrition despite improved economic conditions in the past 20 years.

This has been shown by detailed surveys of food consumption and body mass index of people in 487 households in eight villages located in three Indian states - Telangana, Andhra Pradesh and Maharashtra.

The data is from [village studies](#) conducted regularly by ICRISAT since 1976, that provide a unique insight into a wide range of information.

"Our surveys show that there appears to have been no improvement in the diversity of diets of rural men, women, boys and girls," said Dr R Padmaja, Scientist - Gender Research, ICRISAT.

#### Increased consumption of starchy staples like



Rice in  
Telangana



Wheat in  
Maharashtra

#### is restricting consumption of micronutrients

"Preliminary findings reveal that starchy staples, such as rice in Telangana and wheat in Maharashtra, form the major portion of diets," she said. "Micronutrients are found in staples and cereals, but their intake is below the recommended dietary allowance for India."

#### Women's weight gains tracked

"We found that while under-nutrition in women has halved in the Maharashtra villages since 1976, the incidence of overweight women has grown from nil to 7%, and 18% still remain underweight.

"Even though most women consumed 4-5 food groups, indicating a medium level of diversity, many were consuming calorie-dense foods."

"We expect the high consumption of rice and wheat in some villages is due to the effect of the Public Distribution System (PDS) program which provides rice and wheat to rural households at a subsidized price," Dr Padmaja said

#### Difference in boys and girls

The surveys showed children had greater diet diversity, with the majority eating 4-5 or more than

#### Nutrition insights

Kanzara, Shirapur, Kinkhed and Kalman villages, Maharashtra

Under-nutrition  
in women



Incidence of  
overweight  
women



Underweight  
women



five food groups. Some only ate 2-3 food groups, but this varied between study districts.

"A significant finding was that boys generally had greater diet diversity than girls, indicating preferential feeding in some areas, although this was not the case across the board," Dr Padmaja said.

#### Unknown disease impacts

Despite moderate to high diversity in diets, the prevalence of stunting (low height for age) in children was high in some Maharashtra villages.

"This could be due to insufficient food intake or the result of disease, especially water-borne infections. This has raised an important question as to the impact of sanitation on nutrition, and the absorption of nutrients."

#### Policy implications

Before the introduction of subsidized rice and wheat, sorghum and pearl millet were consumed in high quantities. These grains are considered a poor person's diet, even though they are more nutritious.

The increase in obesity can also be attributed to the increased consumption of fast foods and lifestyle changes like increased mechanization and shift of livelihoods to non-farm work.

"The concern is that these changes are contributing to the growing levels of lifestyle-related diseases like diabetes and hypertension in the community.

"A better understanding of these patterns can help guide policies and programs to address malnutrition and multiple micronutrient deficiencies. We plan to exploit the survey data further to look for answers to the seemingly chronic reasons why income appears to be a small factor in changing nutritional status," said Dr Padmaja. More information

<http://www.slideshare.net/icrisatmco/arm6-session604gendernutritionpadmaja-nx-powerlite> ■

**Project:**  
Village Dynamics  
in South Asia

This work is  
now incorporated  
as part of the



RESEARCH PROGRAM ON  
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Institutions  
and Markets

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