

# Can agrobiodiversity support healthy foods and healthy eating in India's School Feeding Programme?

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## Overview

The Mid-Day Meal Scheme, the world's largest school feeding programme, covering 120 million children and 950 thousand schools, gives an opportunity to policy-makers to ensure better health and nutrition for children by providing healthier food, healthy eating education, and the setting of appropriate food standards and regulations. The Scheme aggregates gains from across the country and supplies them to each district, however the percentage of severely malnutrition/under-weight children of ages 10-13 remains stubbornly high at 30%. To date, MDMS has had very limited focus on local underutilized crops and their comparative nutritional advantages. Here we argue that should MDMS put a greater focus on neglected and underutilized species (NUS) crops like minor millets, local fruits and vegetables, and pulses, there are great advantages to be sought for food and nutritional security.

Agrobiodiversity holds immense importance as throughout history, oversimplification of agriculture has culminated into risky environments for agriculture. Carbohydrate rich crops, generally used in MDMS meals, fail to cover the important micronutrients which are imperative for healthy growth. The NUS crops like minor millets, fruits and pulses are ignored even though they are sources of iron, magnesium, fibres, and vitamins which are absent in rice heavy diets. At present, the MDMS does not put any focus on agrobiodiversity in its mandate for food procurement, neither do the NGOs that carry out the meal preparations.



## Strength

- Largest school feeding programme in the world
- Has tie-ups with NGOs that help in the implementation of programme and preparation of meals
- Centralized system of regulation and food allocation
- FCI does a good job of making food available to schools' kitchens

## Weaknesses

- Has limited provisions for incorporating local agrobiodiversity in the meals
- Still unable to combat stunting, anaemia, and undernourishment
- Limited scope for community participation
- No flexibility to include local producers for NUS grains, fruits, pulses, and vegetables
- Limited consideration of micronutrients in the meals

## Opportunities

- Can exploit PPP to implement ideas of procurement and meal preparation which promote agrobiodiversity
- Can use linkages with PDS system which is now working to include NUS grains and crops
- Can adopt NUS crops to fight nutrition and health issues
- Can be beneficial for small farmers by increasing community participation
- Can help fight food security threats

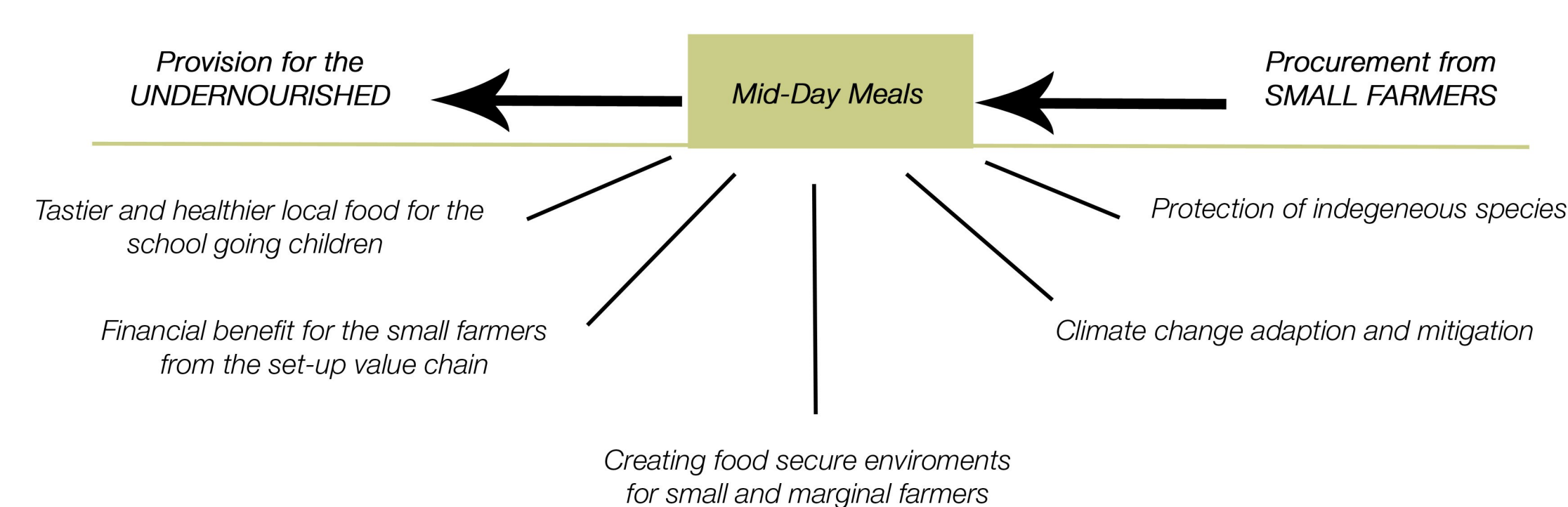
## Threats

- Uniform food grains used in school meals are vulnerable to catastrophic events
- If agrobiodiversity is not given precedence, affordable sources of micronutrients will be lost
- NGOs and other private partners may not agree to comply to changing policies

• **FCI:** The Food Corporation of India is the central body which takes care of supplying food grains to the various schools where mid-day meals are prepared. However, it leaves very little space for community participation and procurement of products at a local level.

• **PDS:** The Public Distribution System is already making provisions for inclusion of NUS grains in the distribution system. The MDMS can leverage this option to gain benefits from agrobiodiverse foods.

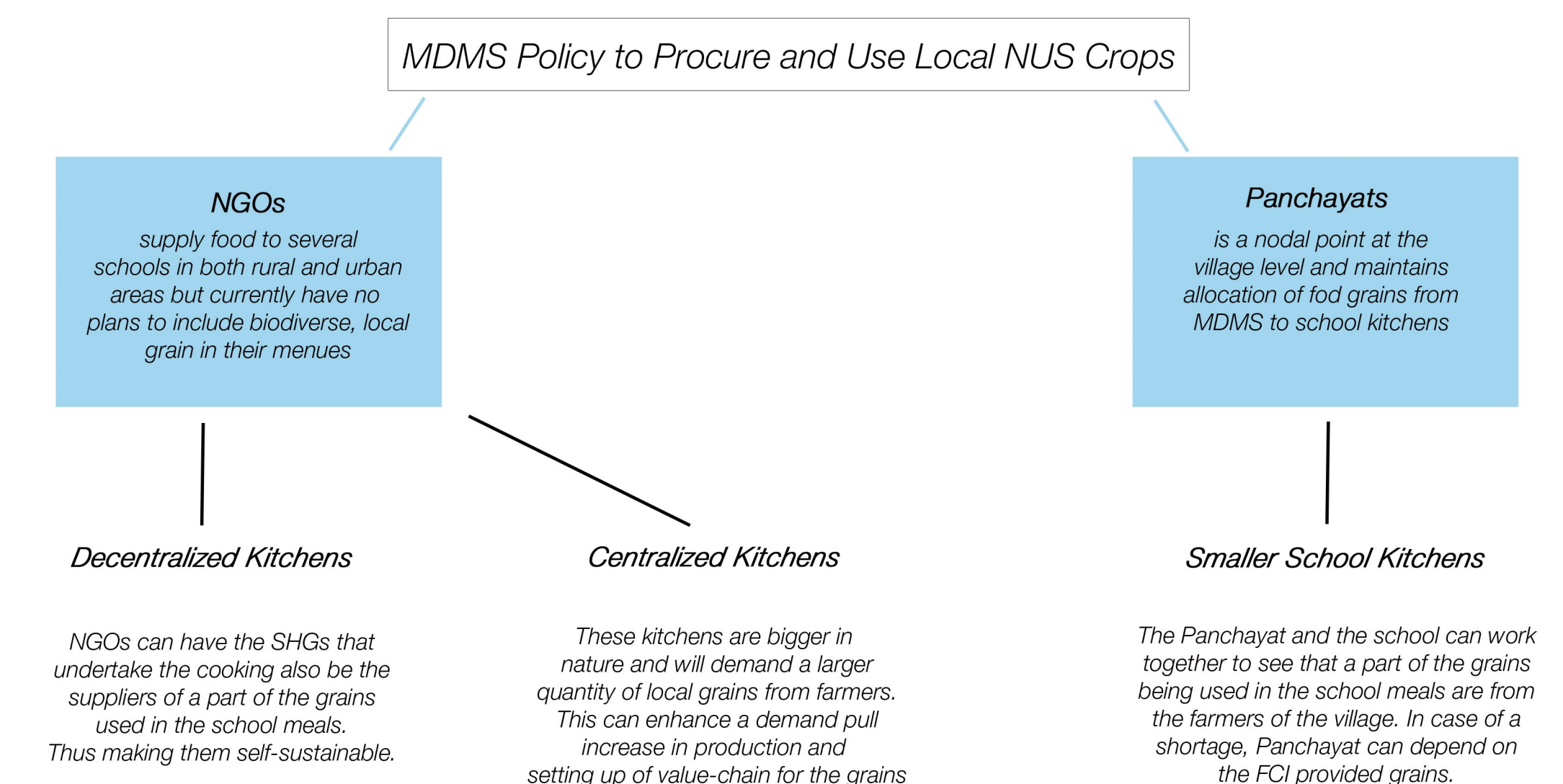
## Effects of Promotion of Agrobiodiversity by MDMS



## Case Study: Madhya Pradesh and NUS Crops

Neglected and underutilized species (NUS) crops are generally grown by small farmers, mostly tribal in the case of Madhya Pradesh, and have a potential to affect the nutrition of its consumers greatly. However, they are disabled in a way that farmers are leaving the cultivation of these climate adaptable crops for crops which are more marketable, like paddy. With a focus on agrobiodiversity, there will be a possibility for small farmers who grow these diverse crops to find a market and thus an incentive to grow these crops. In collaboration with Action for Social Advancement, Bioversity International and IFAD-EU-A4HN support the NUS project in this area which is working towards building value-chains for neglected crops like minor

## Plan for Agrobiodiversity Promotion in MDMS



millets, local pulses, vegetables, and fruits. In 2016, 100 tonnes of NUS grains were collected from local farmers by the farmer producer company established in the regions of Mandla and Dindori. The project looks towards helping incorporate these NUS grains into school meal programmes. The children in the region can benefit from these highly nutritious crops. Additionally, they would learn to appreciate and maintain a taste for these crops, and continue their cultivation.

## Lessons from Global School Feeding Programmes

1. **Botswana:** involves local parent-teacher associations in food procurement of locally grown products
2. **Brazil:** mandated that school feeding programme procure 30% of the raw materials from small holders, making a direct link between family farming and school feeding, while focusing on local, agro-biodiverse foods
3. **Ivory Coast:** procurement of food is based on agricultural production groups functioning at local levels, giving emphasis to women farmers.
4. **Kenya:** the HGSM'09 gives special consideration to local farmers and locally produced crops; the school meals becomes a stable market for these small farmers
5. **Mexico:** has a decentralized system which empowers local level communities by ensuring flexibility in food procurement from them

## Conclusion

The impact of including local produce and NUS crops in the MDMS is both direct, in terms of nutrition for the children, and indirect, by raising incomes of the farmers while also protecting species of crops which have better climate adaptability. The inclusion of these crops is also important for the families of school-going children as it may work towards removing the stigma of NUS crops being food for the poor. The education dimension goes beyond healthy eating in schools. The MDMS can leverage their partnerships with NGOs and use their already established chain with local self-government to implement a plan which buys produce directly from farmers. This would also mean that the supply chains would be shorter, providing more nutritious food. With the several positive externalities it has, a focus on biodiverse, NUS crops can only be beneficial for MDMS.