

On Technological Interventions in Food for Hunger and Malnutrition

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The Working Group for Children Under Six considers that the right to food is a universal human right. Violation of this right results in hunger and malnutrition.

We believe that the problem of hunger and malnutrition in our country are created by structural poverty and inequality with resultant severe food insecurity. High levels of unemployment and ongoing agricultural crisis exemplify this situation. To elaborate, although almost half the people of India earn their livelihoods from agriculture,¹ this sector has been facing unprecedented crisis. Thousands of farmers have committed suicide due to deepening indebtedness caused by climate change, cash cropping, price volatility, and increasing infestation by pests. They are the human face of this crisis. While farmers see little future in agriculture, unemployment in both rural and urban areas is unacceptably high: only 53.2% of rural population and 78.5% of

the urban population can get paid employment throughout the year.¹ The public response to this situation has been contradictory and far from adequate in terms of protecting and promoting community self-reliance and control on issues of food security, agriculture, and livelihoods.

On the one hand, there are laws such as the National Food Security Act, the National Rural Employment Guarantee Act, and systems such as the Public Distribution System (that entitles the poor to a minimum quantity of grain and sugar), the Midday Meal Scheme for school children, and the Integrated Child Development Services (for children under six, and pregnant/lactating women). Some other programs for maternity entitlement, crèches and child-care (for optimal infant and young child feeding including breastfeeding) also exist in policy but remain mainly on paper. The fact remains that the budgets for implementing all the above are consistently highly inadequate and have been reduced recently.² Meanwhile, short-term fixes such as loan waivers to farmers in distress and miniscule cash compensation to families of farmers who commit suicides are implemented even as critical issues such as farmer indebtedness, price volatility, privatisation of natural resources, and climate change continue to be ignored.

In this scenario, various technological interventions are being suggested by technical agencies and considered by the government for reducing hunger and malnutrition. These include genetically modified foods, ready-to-use (therapeutic) foods, and food fortification. These products are especially advocated to deal with various specific aspects of malnutrition such as micronutrient deficiencies and severe acute malnutrition. However, such interventions necessarily create centralised systems for food

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production and distribution that further compromise decentralization, local autonomy and community control. They also detract from local livelihoods and take away the option of using local foods and recipes, many of which have good nutritional value.

For instance, coarse flour that is locally milled and consumed would have to be refined and fortified at a larger, mechanised, central unit before redistribution, if labelling and standards are to be maintained, thus disrupting local micro-economies and practices. This would also likely shift diets further away from millets that have much higher nutritional value but are not amenable to fortification in the same manner as refined flour. Further, as it disrupts self-reliance, such products would create dependence upon a supply system that is notoriously unreliable.

Instead, the issues of hunger and malnutrition can be largely taken care of by an alternative, comprehensive approach that invests in and gives primacy to local control over food production and distribution along with appropriate inputs; both financial and technical. Enabling people to make the agricultural and behaviour changes needed to improve dietary diversity, quantity and quality would ensure a true food security that is not interpreted as mere calorie-sufficiency through cereal-based diets.

Feeding practices certainly need to change if nutritional deficiencies in children – both micro and macro – are to be tackled with urgency and efficacy. Higher calorie-density, protein-rich foods need to be produced and sourced in as decentralised a manner as possible and produced from locally available foods such as eggs. Many state-led³ and NGO⁴ models in India have demonstrated that this can be done with reasonable success.

Despite the suggested interventions, the need for micronutrient supplementation is likely to persist in the short term. We recommend that the issues of food and medicine should not be mixed up where micronutrient deficiencies are concerned. Fortification is a centralised process with debatable impact on micronutrient deficiencies.^{5,6} Micronutrient supplements need a production process that is akin to that of producing other drugs and we already have on-going supplementation programmes though they

need reform and better implementation. The issues of food security, on the other hand, are closely linked to local agricultural practices, subsistence economies, livelihoods, culture, support for women's work and childcare and infant and young child feeding practices.

As far as Genetically Modified (GM) food is concerned, not only is its impact debatable, there are also serious current, potential, and irreversible consequences for health.⁷ In the absence of proper evidence and regulation for safety, we recommend a moratorium on GM imports as well as on open field-testing until safety concerns have been put adequately to rest.

Last but not least, technological interventions in food for reducing hunger and malnutrition should be protected from commercial interests. They should be carried out through public institutions, based on transparent processes, public debate and scientific evidence, with extensive safeguards against profit motives and conflict of interest.

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