

## Millets –A Sustainable Alternative to Food and Nutritional Security

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Due to population explosion, food security is at stake. Climate change is drastically making a sweeping impact on our environment. Consistent decline in crop production and loss of biodiversity are ripping off the nutritional value of our food. Dietary habits in India have made a paradigm shift from traditional staple food grains, which were largely millets, towards the post-green revolution staples such as wheat and rice. This dietary shift from traditional to Wheat-Rice based 'a food is considered to be one of the main reasons for diet-related non-communicable illnesses as well as malnutrition in India. It has been felt that there is need to revisit our traditional dietary patterns to achieve nutrition and food security. Millets are viable options when we talk about nutrition sensitive agriculture.

Millet is considered as one of the oldest cultivated grains in the world. The history of millets can be traced back to Indus Valley Civilization. It has been growing throughout Africa and Southeast Asia for thousands of years. Millets are native traditional crop of India. Millets are traditional grains, grown and consumed in the Indian subcontinent from the past 5000 years (GOI, 2019). So, millets are neither a new 'super food' nor a short-lived craze that suddenly people are talking about. Millets belongs to the grass family are powerhouse of protein, fibre, vitamins and minerals. Thus, it is often touted as magical food due to its nutritional value. There are different kinds of Millets like Jowar (Sorghum), Ragi (Finger Millet), Boro Millet etc. According to researchers of International Crops Research Institute of the Semi-Arid Tropics (ICRISAT), if rice is replaced by millet in meals for a duration ranging from three months to four and a half years, it can boost growth in children and adolescents by 26 per cent to 39 per cent.

As per the Indian Institute of Millets Research (IIMR), Millets are nutritionally superior to other grains, it contains high number of proteins, essential amino acids, minerals and vitamins. Finger millet (Ragi) is the richest source of calcium, it contains around 300-350



mg/100 g. IIMR also adds that Millets are also a natural source of iron, zinc, calcium and other nutrients that are essential for curbing the problem of malnutrition, which is highly prevalent in India. According to Food Safety and Standard Authority of India (FSSAI), Millets have high amount of dietary fibre therefore it often acts as a “prebiotic,” which means it supports good bacteria in your digestive system. With the world becoming warmer, increasing water scarcity, lesser land availability for cultivation, and growing needs for food due to population growth, millets presented an opportunity to vulnerable countries to ensure sustainable food security. Changes in policies, provision of subsidies and minimum support prices for some crops and shifts in preferred diets of people gradually confined millets production and consumption to a few communities such as tribal populations. Millets can grow on shallow, low fertile/saline soils, and have a low water requirement and shorter growing period of 60-90 days. Millets fall under the group of C4 cereals that take more carbon dioxide from the atmosphere and convert it to oxygen and hence are more environmentally friendly and good ecosystem. It can withstand drought and extreme weather conditions too. Millets can be stored for a longer period under ordinary conditions and thus treated as ‘famine reserves’, which is important for rain-dependent smallholder farmers. Millets indeed are a crop of the future.

India stands as the largest producer and second largest exporter of millets, the concentrated efforts from the government schemes and policies through millet missions and active involvement of ICAR institutions, private agencies, NGOs are doing excellent work in mainstreaming millets in our dietary patterns. Millets are beacon of hope in attaining nutritional and food security of India. Declaration of Minimum Support Price for millets, efforts to include it in day to day food habits, capacity building and creation farmers’ producer’s organizations, and inculcating entrepreneurship skills among the millets growers are creating an enabling environment. Concentrated efforts, Collaborative action researches and efficient resources utilisation are needed to scale up the production of millets and that’s why 2023 has been decided to be celebrated as International Year of Millets by FAO.