INDO-US MILLET INITIATIVE

International seminar

On

Global Food Security Challenges
Vs.
Climate Change and Disaster Management

Organized by

International Institute of Disaster Management
And
Indo-US Millet Initiative
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Genesis:

The humble Millets are grown in East Asia. In India, we have a long history of growing millets, dating back to 10,000 years. India and Africa (especially, Nigeria) are the major millet growing countries, if put together, 97% of the world production comes from these two countries alone. It's very interesting to see the change in the status of millets. Post-Covid, the status of Millets reversed from the status of 'poor man's food' to be a much sought after staple food for health-conscious masses. With the announcement of International Year of Millet 2023 by UN based on the proposal of Government of India, Millet got a big support as its planetary positions changed completely and everyone started talking about Millets forgetting main staple crops in India (wheat and paddy), which gave a big boost to Millet and farmers are using it for their food and for their animal's fodder well.

Current Status:
Government of India through Ministry of Agriculture and Farmers Welfare released a statement notifying Millets, i.e. Foxtail Millets (Kangani/Kakun), Proso Millet (Cheena), Kodo Millet (Kodo), Barnyard Millet (Sawa/Jhangora), little Millet (Kutki) and two Pseudo Millets i.e. Buckwheat (kutu) and Amaranthus (Chaulai) as **"Nutri Cereals"** on 10th April, 2018, and subsequently our Hon'ble Prime Minister renamed it as **"SHREE ANNA"** on 18th March, 2023. This has opened doors of opportunities for Millets to be the Global Champion for Food Security in 2030 and beyond because of its richness and goodness with versatility and flexibility to adjust with almost all climatic zones which has really made Millets as favored SUPER FOOD (The food which gives all nutrition as well as heals).

Need of the "INTERNATIONAL DECADE OF MILLETS"
A brain storming session was convened by Indian Millet Initiative and Sorghum United at Daugherty Water For Food Global Institute at Nebraska which was attended by different State Govt. Agencies, Economic Development Agencies, North American Millet Alliance (virtually) and University of Nebraska and the proposal of India Millet Initiative was accepted unanimously and a road map was discussed and a resolution was passed that let's have a "International Decade of Millets" to bring back the Millets to Farmer's fields and to the daily plates of Consumers with a focus on promotion of Millets in producing countries as well as consuming countries to have a balance to have consistent supply of these mighty grains. Millets ,being climate resilient crops have a great role to mitigate the challenges of Global Food Security , Nutrition security and water shortage for agriculture in future.Therefore, the following "logo" has been adopted to represent "International Decade of Millets 2024-2034".

Ever since the International Year of Millet 2023 was announced, we have seen a very huge participation from all stakeholders across the country and at international level, which had created demand for Millets and their Value-

Added Products across the Globe. However, the supply side is weakened which had resulted in cost-spiraling and undue advantage for those who are not in millet production. In order to address this specific issue, we understand that a lot needs to be done at the ground level, and with the expertise available in all fronts, it should be our endeavor to support farming community at the ground level supporting them with the new approaches and methods that would give them better yield and help them sustain their activities without switching over to other cash crops and sensitize the consumers and create awareness about goodness of the Shree Anna crops and their varied products which will have taste of India as well as the recipes popular in western world.

With this objective in mind, proposed '**INTERNATIONAL DECADE OF MILLETS (2024-2034)**', will help sustain the spirit of declaring millet crops the only remedy for the health and nutritional benefits for over nine billion population on Mother Earth and bringing back the lost legacy of our nutritious and mighty food grains during last couple of decades.

The Challenges of Food Security

The world is in the midst of a global food crisis, with projections showing that as many as 670 million people will still face hunger by 2030. By 2050, estimates predict that the total number of people living on Earth will reach nearly 10 billion. More people on the planet means more mouths to feed and this can put a strain on its resources as the modern agricultural system is already struggling to meet global needs.

The recent catastrophic event, i.e. Corona-Virus pandemic (COVID-19) had heavily compromised the global food chain, sparking changes in consumers' demand, leading to the sudden closure of food production facilities, restricting food trade policies, and adding financial pressure on the food system. Combined, these factors have led to shortages of food supplies and an increase in the number of people facing hunger and malnutrition. People around the world but especially in developing countries experienced an abrupt disruption to food supplies and low-income households had to deal with hyperinflation and rising commodity prices.

In examining the main threats to the world's food system, it becomes clear that food security is a global problem and in a large part, a human-made crisis exacerbated by the effects of climate change, our food habits as well as national and international conflicts. In order to protect food security, governments around the world need to take action.

In a bid to prevent starvation following the Second World War, crop scientists have found ways to mass produce certain grains in what has become known as the 'Green Revolution'. Whilst grain production tripled, and the human population doubled between 1970 and 2023, diversity in our crops declined significantly, with thousands of locally adapted, traditional varieties being replaced with a limited range of highly productive ones. This was the beginning of monoculture farming, a method that remains the dominant mode of agricultural production today. Although increasing crop yields has been vital to feed a fast-growing population, monoculture agriculture, in which just one crop is cultivated in order to maximize yields and profits, has wreaked havoc on our ecosystems and biodiversity. The heavy use of synthetic fertilizers and the vast amounts of water needed for crop irrigation have led to degraded soil, polluted waterways, and the draining and destruction of many lakes and rivers. The knock-on-effect on

surrounding ecosystems is huge and monoculture farming as a means of agricultural production is highly unsustainable.

Our current food system is at a dead end; basing global food supply around a limited range of species has led to the rise of monoculture farming and produced crops that are unable to withstand environmental changes brought about by rising temperatures. As the world warms, crop yields around the globe are predicted to decrease, leading us to the question: what can be done to make our global food system more resilient?

The climate crisis is changing weather patterns and increasing the chances of extreme events such as hurricanes, floods, and droughts. It is also responsible for changing and polluting entire ecosystems, compromising biodiversity and destroying harvests. All these events have a huge impact on food production, as they significantly limit the quality, availability, and accessibility of resources, and compromise the stability of food systems around the world.

According to a new NASA study, maize (corn) crops are among the most threatened under a high greenhouse gas emissions scenario. If countries do not manage to drastically reduce their carbon footprint, maize crop, rice and wheat yields are projected to decline by 2030 as a consequence of climate change, with supplies of these resources shrinking substantially, particularly in food-insecure developing countries.

The Way Forward

To protect our food system from catastrophes, it is crucial that we diversify the spectrum of species grown and eaten. There are over 7,000 edible plant species but fewer than 200 have been extensively domesticated, meaning we are reliant on an extremely narrow range of genetically diverse crops. Identifying and conserving these species is essential, particularly as many of them are being driven to extinction due to deforestation and habitat destruction. Neglected and under-utilized species can also be used in breeding programs with common, mass produced species to create crops that are more resilient to weather extremes.

As extreme weather events continue to intensify, agricultural productivity is at risk of total collapse. For this reason, it is of utmost importance that nations do their part in slowing down global warming by adopting greener policies and more sustainable approaches to food production and distribution. Furthermore, countries need to protect themselves from sudden and unpredictable events that may arise in the future. While relying on imports is not necessarily wrong, countries are learning that they cannot entirely depend on other countries. This calls for a diversification of food production as well as the development of a monitoring and feedback system to safeguard and protect the most vulnerable crops. We also need to dramatically change our approach to food production and consumption, from using less intensive agricultural methods, water ,fertilizers, and other polluting substances to growing our crops and Millets, being climate resilient crops should be promoted for “Climate Smart Agriculture”, to mitigate food security and nutrition security challenges, water shortage and decreasing soil fertility and reduce carbon foot prints to have sustainable smart agriculture resulting climate smart food.