

TECHNOLOGY

Yesterday, Today and Tomorrow

Application
Performance 2.0
Enabling Revenue
Growth and

accelQ

Simple to use powerful Al driven test automation platform

Digital Innovation in Asia

The Technology's Fantastic Four





#01 HI JOANNA, COULD YOU TELL US A LITTLE ABOUT YOURSELF, AND YOUR BACKGROUND?

I started my career as an economist in Australia working on modeling and forecasting, which treats people as homogenous, but my interest turned towards addressing the human aspect of economics. After further studies, I moved into market research and later into the non-profit world overseas. In the past 23 years since I left Australia, I worked in the Philippines, Malaysia, Italy, Sri Lanka, and India with non-profit organizations across diverse fields like agriculture, food, and natural resource management. I am currently working as the Director - Strategic Marketing and Communications, with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India.

#02 WHAT LED TO THE INITIATION OF SMART FOOD AND WHY?

The organization I work for now, ICRISAT focuses on the drylands across Asia and Africa. These are some of the harshest areas plagued by extreme water scarcity and degraded soils and are going to be hit the hardest by climate change. They also have the highest poverty and malnutrition rates.

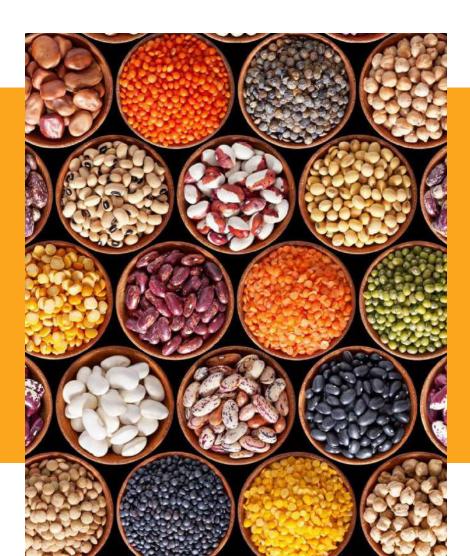
As I started analyzing these challenges and their impacts on hunger and food production, I learned about millets, which I had never heard of or tasted before. Millets are traditional foods of these areas, are super nutritious, survive with minimal water and are often the last crop standing in times of drought. They are recognized as "Climate Smart" crops. They are also prone to very few pests and diseases and are often naturally organic and have a low carbon footprint. But more importantly, they are really tasty and are versatile in that they can be cooked in so many ways – from being a bowl of rice, malt drink, flour and also used in bakery products, soups, salads, desserts etc.

Millets were the staple in many countries, but the green revolution and industrialization of a few crops saw them being relegated to the periphery of food preferences. The replacement foods were typically highly refined and low in nutrition.

The turning point came with the realization that even with so much attention on overcoming malnutrition, new

#03 WHAT IS YOUR VISION FOR THE SMART FOOD INITIATIVE?

I envision Smart Food becoming a part of regular diets and the food system. By building millets and sorghum as a major business and progressing from the Big 3 to create the Big 5 and later the Big 7, we will have a major impact on global issues of nutrition/health, environment, and farmer welfare.





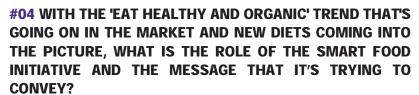
lifestyle diseases, adaptation and mitigation to climate change, and other global issues, there was almost no effort being made to diversify the staples. The staples may typically fill 70% of the plate and are often eaten three times a day. If we aren't focusing on them, nearly 70% of our food system is being ignored and we will not have a major impact.

I asked myself what the biggest hurdle was to diversifying staples. We have what I call the Food System Divide. This is because, for decades, the vast majority of investments have been funneled into just a few crops. This has included government support, private industry investment, R&D, product development and even development aid. The result has been well-developed value chains for the Big 3 – rice, wheat and maize, and poorly developed value chains for other foods like millets. This can encourage farmers to grow crops in the wrong agro-ecologies, putting more stress on the environment and being at higher risk. It has also led to less nutritious diets.

I understood that we can have a long-lasting and major impact on some of the big global issues of nutrition, environment, climate change, and farmer welfare, and do this in unison – if we diversify the staples with Smart Food like millets that fulfill all the criteria of being good for you, the planet and the farmer. This also opens up opportunities for creating new and large businesses.







Smart Food is in sync with the healthy and organic trend and even goes further, as it is a food that is not only good for you, but also for the planet and the farmer.

Smart Food like millets and sorghum also fit into major global health food trends. They are a superfood, are ancient grains, glutenfree, have a low glycaemic index, are high in fiber, have good





antioxidants and are good for losing weight too.

Although we work in Asia and Africa, we recognize that incorporating food as a staple requires developing a whole value chain around it and on an industrial scale. As part of this, we need to think globally and popularize Smart Food, starting with millets and sorghum.



#05 WHAT IS THE NEED FOR GREATERDIVERSITY IN OUR DIET AND ON-FARM?

Diversifying our diets is critical for ensuring we receive the range of nutrients required. On-farm diversity is important to balance the use of natural resources, reduce the risk to farmers of disease and pest outbreaks and to be able to cope with natural changes.

#06 HOW ARE WE GOING TO TACKLE CLIMATIC CHANGES THROUGH SMART FOOD?

Smart Food can help with both adaptation and mitigation of climate change. Of course, it still depends on a number of factors, but Smart Food may use fewer fertilizers and pesticides and have a lower carbon footprint. Climatesmart crops that survive extremes of heat and use less water are more adaptable. Large areas of land, especially in the dry zones, are becoming less suitable to wheat and maize. Alternatives like millets and sorghum will be critical solutions in many of these areas.

#08 WHAT ARE THE CHALLENGES SO FAR WITH THIS NEW INITIATIVE?

You may think that behavior change is the biggest challenge when we are talking about people changing their diets. However, the studies we have done in India, Myanmar, Kenya, and Tanzania all show the great potential for consumer acceptance of millets and sorghum if prepared in culturally sensitive ways. Our biggest challenge is getting the funding and partners to do this on the scale. There are good commercial benefits and agri-business and trade opportunities. More pioneers and big players are needed to drive this forward.

#08 WHAT MEASURES ARE BEING TAKEN TO CONVINCE FARMERS TO SWITCH TO THESE SMART CROPS FROM THE REGULAR COMMERCIAL CROPS?

Smart Food has a unique approach. We are starting at the consumer level and are working with the industry as "The staples may typically fill 70% of the plate and are often eaten three times a day."

Joanna















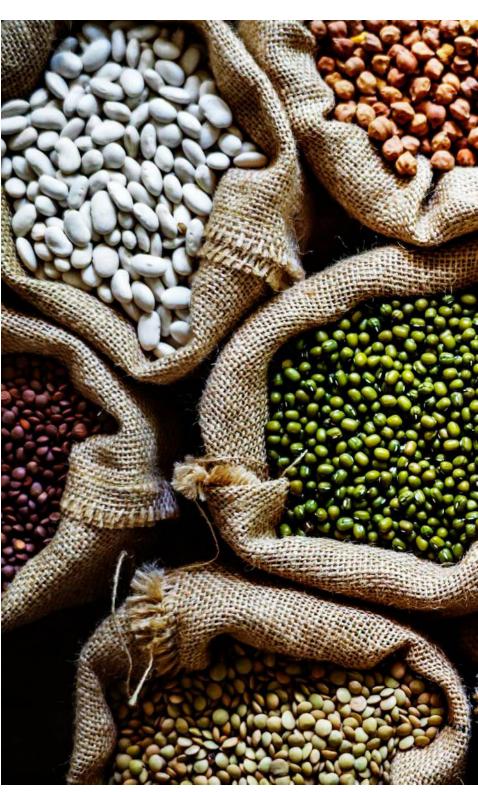


"The replacement foods were typically highly refined and low in nutrition."

well. Building consumer awareness and demand is critical; so is working with food processors and the food service industry. Of course, we have to balance this by also working with suppliers. In this balancing act, the key lies in linking farmers into the value chain.

#09 WHAT PIECE OF ADVICE WOULD YOU GIVE THE URBAN BUSINESS OWNERS WHO ARE VENTURING INTO THIS FIELD OF MANUFACTURING MILLET-BASED PRODUCTS?

The Smart Food movement has picked up momentum. Markets are growing in our first focus area of millets and sorghum. They are often hailed as the next guinoa but they have much more potential as they can be a staple. They possess multiple uses, like biofuels, feed/fodder, brewing as well as food, opening up opportunities in all these agri-businesses. Now is the time to press on with all these advantages since there is a good chance as 2023 will be declared as the International Year of Millets. While this has already been approved by the FAO, it goes to the UN Assembly in the middle of this year for final approval. India is leading the charge and many countries are part of the consortium to support this. We need to do what it takes in the next couple of years to set businesses in place to capitalize on the global attention and push that will come to millets as the result of the International Year.





Smart Food initiatives.





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