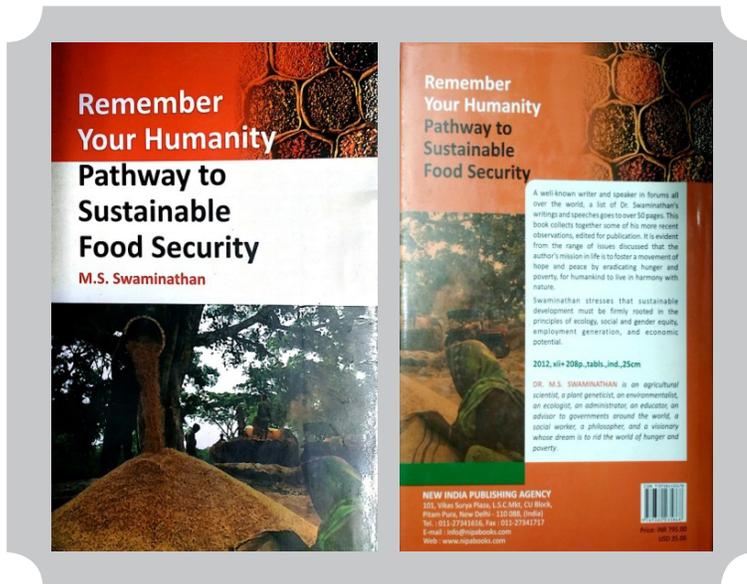


Book Review

Remember Your Humanity-Pathway to Sustainable Food Security and authored by Dr. M.S. Swaminathan, published by New India Publishing Agency, 101, Vikas Surya Plaza, CU Block, Pitam Pura, New Delhi -110 088, (India) pp. 205, 2012.



The book entailed: **Remember Your Humanity-Pathway to Sustainable Food Security**, is authored by Dr. M.S. Swaminathan, the great Indian Agricultural Scientist whose researches and further steering the growth of Indian agriculture is too immense to mention. Dr. M.S. Swaminathan is a well known a plant geneticist, an environmentalist, an ecologist, an administrator, an educator, an advisor to governments around the world, a social worker, a philosopher, and a visionary whose dream is to get the world rid of hunger and poverty. So, reviewing a book authored by such an eminent scientist is it-self a big honour. Having said so, the book has 38 chapters in all with the preface and acronyms. Most of the chapters are thought provoking, others are on the guidelines for policy framing and some are about the ways and means to grow the food. The beauty of the book is that the authors have cited several examples of eminent scientists, political personalities and the

thinkers and developed the subject matter of the book accordingly, justifying fully its title.

As written by the author himself, the book is the compilation of the lectures delivered by him during various seminars throughout the world. To quote *"This volume is a collection of my thoughts and beliefs on a variety of subjects I have been deeply interested in and also equally deeply concerned with. It has been my constant endeavour over the years, expressed in the many articles I have written and the talks I have given, that for lasting environmental security and human happiness, we need to work for a world devoid of both unsustainable lifestyles and unacceptable poverty. To face successfully the ecological, economic and social challenges confronting us today, we need transformational genes, technologies, and, above all, committed human beings"*. By reading the book, the reader can imagine what personality the author has and what he has contributed to Indian agriculture and poverty and hunger elimination world the over. Based on the book, I could say that he is a scientist, a thought provoking philosopher, a writer, thinker and over all a personality with a human heart. So in the book, he has blended beautifully the science with humanity and philosophy with a unique combination that makes an excellent food for thought, though it takes a considerable time to digest and assimilate the same. Though the pages are 281, it though pages is nothing short of a treatise. I would de discussing a few chapters and would like the readers to read the others and enjoy the master piece.

The book started with a preface which itself is worth several chapters of normal book to read and understand. It started with the non-violent movement that have achieved many seemingly impossible goals, then cited several examples to including our achieving our own independence by non- violent means, To quote him *"All these significant landmarks in human history and many more have been achieved through the Gandhian pathway of non-violence and the plea from Bertrand Russell and Albert Einstein that we should remember our humanity and forget everything elseLet me also cite an example of happiness in one's life arising from tolerance and understanding"* Wherein he has quoted *"Wherein he has quoted an example of Charles Darwin – the great scientist who advocated the theory of Origin of Species. Darwin's wife Emma Wedgwood was an ardent Catholic and did not believe in the evolution theory of her husband. Yet, they were a companionable couple and I'ved happily together. Emma even edited Darwin's book. When asked how she was living contentedly with a man whose scientific work was regarded by some as blasphemy, she said: 'Charles lives by reason, while I live by faith - we agree to disagree and this mutual respect for divergent views explains how we live happily together.' Such respect for pluralism and diversity is the need of the hour"*. *"The UN Millennium Development Goals adopted by all Member States in the year 2000 represent a global common minimum programme for sustainable human security and well-being. The first among the 8 goals adopted for accomplishment by the year 2015 relates to reduction in the incidence of hunger and poverty"*. *"We must use our intelligence and reason in humanistic endeavours to fight hunger."*

The Chapter-1 here is Remember Your Humanity. In this chapter, the author has tried to correlate the war, humanity and hunger in an excellent way. To quote him *“In July 1955, Bertrand Russell and Albert Einstein issued their famous manifesto seeking the abolition of nuclear weapons and appealing to all inhabitants of Planet Earth: Remember your humanity, and forget the rest. If you can do so, the way is open to a new Paradise; if you can not, there lies before you the risk of universal death. He further narrated “It will be useful to recall the role Jawaharlal Nehru played in mobilising scientific opinion against nuclear weapons. Early in 1954, he called for the setting up of a committee of scientists to explain to the world the effect a nuclear war would have on humanity. This idea was taken up by Joseph Rotblat, who along with Pugwash was awarded the Nobel Peace Prize in 1995, and Eugene Rabinowitch, resulting in the organisation of the Pugwash Conferences on Science and World Affairs” So stating from the dropping of atomic bombs on Hiroshima, followed by conferences on nuclear disarmament (The Pugwash Conference held in 1995) at Hiroshima on the occasion of the 50th anniversary of the advent of atomic weapons and concluded: ‘The end of the Cold War, and the beginning of deep reduction in the huge nuclear arsenals that the war spawned, have provided an unprecedented opportunity for the abolition of nuclear weapons as well as the abolition of war.’ Meeting again in Hiroshima in July 2005, the Pugwash Council) and final the eradicating poverty, thus hunger as one of the goal of mankind as declared in the conference. The chapter is a great philosophical, but a chapter on ground realities.*

He wrote, *“The explosive progress in science and technology witnessed in recent decades has provided uncommon opportunities for realising the UN Millennium Development Goals in the areas of food, water, health, education and clean environment for all. Yet, most developing countries, including India, are falling behind the targets set. The extensive co-existence of unacceptable poverty and unsustainable lifestyles is not conducive to the creation of a climate for peace and harmony. What we urgently need is a shift in emphasis among militarily and economically powerful countries from military to moral leadership. At the same time, Einstein’s advice to fellow scientists that ‘concern for Man himself and his fate must always form the chief interest of all technical endeavours in order that the creation of our minds shall be a blessing and not a curse’ should be the guiding motto in scientific laboratories everywhere in the world.”*

Chapter-2 is on *Ethics and Science*. In my opinion this chapter should be read by all scientists. It gives in essence the various issues concerned with science and the ethics. The most important element which is ignored by us is the translation of scientific discoveries to their respective applications. In the words of author: *An ancient Chinese proverb says “If you are thinking one year ahead, plant rice If you are thinking ten years ahead, plant trees If you are thinking hundred years ahead, educate the people”*. Subramanya Bharati, a great Tamil poet, wrote decades ago that *“nutrition and education were the two legs of a human being — nutrition for the body and education for the mind”*. The author advocates that *we must, therefore, foster a movement for integrating academic excellence and social relevance in the curricula of our educational institutions. Our universities should promote the growth of the science of technology, which is the product of the integration of traditional knowledge with frontier science. This will need a mind-set change in relation to the knowledge and wisdom of our tribal and rural families”*. According to the author: *In the 1990s, I developed the Iwokrama Rain Forest Programme, which represents the world’s largest adventure in the sustainable management of rain forests. The local Amerindian population welcomed me to Iwokrama with a song, which translates thus:*

- ❖ The sky is held up by the forest,
- ❖ If the forest disappears, the sky,
- ❖ Which is the roof of the world collapses,
- ❖ Nature and man then perish together.

“It is such a wisdom and ecological prudence that we must recapture today, when we see around us the spread of a greed revolution with reference to the exploitation of natural resources. With the growing power of human beings in the fields of genetic modification and nano technology, there is need for greater attention to bioethics. Every area of frontier technology, such as nuclear sciences, can be used or abused. This is why the inclusion of bioethics in the curriculum becomes important. Our aim in biological sciences should be the promotion of an era of bio-happiness, based on the sustainable and equitable conversion of bioresources into jobs and income. Biohappiness and not bioterrorism should be the end result of our scientific endeavour.”

Another very important aspects of Science touched by the author is *Translational research* which is worthy of greater attention in our universities research institutes. The author cited the example of Prime Minister Dr. Manmohan Singh who has pointed out that while C.V. Raman won the Nobel Prize as far back as 1930 for the Raman Effect, most of the instruments available in India today using this principle are imported. Translational research will help to convert scientific findings into commercially viable technology. While science advances the frontiers of knowledge, it is technology that converts scientific knowledge into products and processes and thereby generates wealth. Translational research is particularly needed in our country in areas relevant to the rural professions, including agriculture, where the gap between scientific know-how and field level do-how is widening. Another aspect which has been written by the author is that *“must not deceive ourselves into believing that by establishing 14 Innovation Universities, we will become an Innovation Superpower”*. It is worthwhile recalling what J.R.D. Tata once said: *“I do not want India to become a superpower; I want it to be a happy country.’ Nutrition and education are the pathways to a happy country.”* Food and drinking water are the first among the hierarchical needs of a human being. Food security at the level of each individual child, woman and man. In the end the quote the saying by great scientist on potential nuclear conflicts as: In the Russell-Einstein

Manifesto of 1955. *There lies before us, if we choose, continual progress in happiness, knowledge and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? We must remember our humanity and cultivate the culture of compassion, so that we can lead fulfilling lives.*

In Chapter-3 Four Pillars of Sustainable Human Happiness have been described as developed by Bhutan as Gross National Happiness (GNP) and comprise of spiritual and cultural values, including love, love of sports, music, dance and other spiritual activities which is a good measure of happiness than Gross Natural Product (GDP). According to the author, it is a good departure from present measuring happiness purely from money point of view. He has elaborated four pillars to measure happiness as ecology, equality, ethics and economics. Let the readers read the book and relish the same. I would not take out their enjoyment of reading such a fascinating account of science, philosophy and humanity.

Chapter-4 discusses Norman Borlaug and His Fight against Hunger. These two chapters should be read by all, as these describe about the magnitude of hunger and the need of action required for the same. The concept of making the people understand their rights and make them powerful is the subject matter of chapter-5 entitled *"Bridging the Digital Divide: Empowering the People"*. The strategy to have productivity is outlined in Chapter-6 on Harnessing the Demographic Dividend for Agricultural Rejuvenation and how to achieve the food security through law is advocated rightly in Chapter-7 Legislation for Food Security. Similarly in Chapter-8 How to Resolve the Crisis of Indian Agriculture has been described. In Chapter-9 the author has brought Gandhian thinking into focus and the chapter is named accordingly Gandhiji's Plea for a Hunger Free India: Current Reality and Way to Progress have been well described.

Chapter-10 is on Wheat Imports and Food Security while Chapter-11 discuss how to Distribute, Procure, Store and Sow – Chapters-12 (Steps to Food Security Sustainable Food Security: Pre-requisites for Success), 13 (Pathway for Food Security for all), 14 (Biodiversity and Poverty Alleviation), 15 (Biodiversity and Sustainable Food Security, are all related with food securities and how to achieve the same. Various aspects have been covered in different chapters as detailed here. Chapter-16 Priorities in Agricultural Research and Education is an excellent account given as guidelines for improving the educational program with priorities to achieve the target of food security for a vast population like that of India. Chapter-17 entitled as Managing Anticipated Food Crises is a very important aspect where description of how to manage the problems encountered in event of food deficit or its distribution or how to overcome the situations like drought.

Chapter-18 To the Hungry, God is Bread, is another inspirational and thoughtful chapter in the book. He has written that *"The National Food Security Bill, 2011 designed to make access to food a legal right, is the last chance to convert Gandhiji's vision of a hunger-free India into reality. Mahatma Gandhi's articulation of the role of food in a human being's life in his speech at Noakhali, now in Bangladesh, in 1946 is the most powerful expression of the importance of making access to food a basic human right. Gandhiji also wanted that the pathway to ending hunger should be opportunities for everyone to earn their daily bread, since the process of ending hunger should not lead to the erosion of human dignity.* Unfortunately, this message was forgotten after the country became independent in 1947, and government departments started referring to those being provided some form of social support as "beneficiaries". The designation "beneficiary" is also being applied to the women and men who toil for 8 hours in sun and rain under the Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGA). Sixty-five years after Gandhiji's Noakhali speech, we find that India is the home for the largest number of under- and malnourished children, women and men in the world. There are more persons going to bed partially hungry now, than the entire Population of India in 1947." Many aspects we know about hunger and poverty but never took them in way that could result in better productivity for the society where we live and grow especially to do something for the hungry mouths. Most of the scientists remain entangled in their narrow research field, which is of course required for a successful scientist, but our thinking should define and contribute towards the final goal i.e. to serve the humanity at large. According to the author *"A life-cycle approach to food security will imply attention to the nutritional needs of a human being, from conception to cremation"*.

Chapter-19 is the Wheat Mountains of the Punjab. It covers the growth of agricultural crops in Punjab which has contributed immensely to the granary of India at a time when the world was watching how India will feed its vast population with adequate food. Chapter-20 is on Fish for All and For Ever, is a good contribution as is Chapter-21 Leveraging Agriculture for Improving Nutrition and Health. The author has taken pain discuss this important issue of the genetic engineering that has produced the plants and animals with defined characteristics including higher productivity on the other hand has created some problems to the consumers like allergy or mutation in the long run if food crops of genetically crops are consumed as discussed in Chapter-22 entitled *"GM Food Crops: Risks and Benefits."* The other chapters are; Chapter-23 Land Rush and Food Security in an Era of Climate Change, Chapter-24 Darwinism in a Warming Planet, Chapter-25 Climate and Food Security, Chapter-26 Maximising the Benefit of A Good Monsoon, Chapter-27 Building Sustainable Water Security Systems and Chapter-28 Drought Management for Rural Livelihood Security, Chapter-29 Privatisation of Food and Water Security Systems: An Unequal Social Bargain, Chapter-30 Shaping the Future of Agriculture in Northeastern India, Chapter-31 Towards Vidarbha's Agricultural Renaissance Chapter-32 Science's Role in Stimulating West Bengal's, Agricultural Performance Chapter-33 Singur and Our Socio-Economic

Future, Chapter-34 and rest of the chapters contain a wealth of information for the readers. From Vision to Impact, and finally Acronyms.

By and large, the book is an excellent treatise for the agriculturalists, scientists, thinkers and philosopher, and for those readers who are always in search of something as a feast to mind and brain. The authors and the publisher have done an excellent job of publishing such a great book, and thus, need to be complemented.

Prof. V.K. Joshi

Visiting Professor Shoolini University,
Former Prof & Head, FST, Nauri, Solan (HP) India
Consultant CSIR, IHBT, Palampur (HP)
Member of Food Safety and Standards Authority of India