SPEECH

OF
HIS EXCELLENCY

LT GENERAL NIRBHAY SHARMA,
PVSM, UYSM, AVSM, VSM (RETD),

GOVERNOR,

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ON THE OCCASION

OF

NATIONAL CONFERENCE

ON

"EMERGING TECHNOLOGY TRENDS IN

AGRICULTURAL ENGINEERING (ATTAE 2014)"

AT NERIST, NIRJULI

ON
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I deem it my proud privilege to inaugurate this National Conference on emerging technology trends in agricultural engineering. I am happy to have this opportunity to address a distinguished gathering of eminent scientists, researchers, educationists, and students. I hope that this conference will be an important interface between key players in agricultural engineering, research and education. It will definitely provide ample opportunities for all the participants to brainstorm on the challenges in this field.

For undertaking this initiative, I compliment North Eastern Regional Institute of Science and Technology Nirjuli. This Institute is one of its kind in the whole country, having unconventional and innovative academic programmes. In its endeavour to develop a sound human resource base by nurturing the talents, particularly from North Eastern States, it has created a niche in the field of science and technology.I wish that this institute takes more of such initiatives in future.

The agriculture sector is one of the vital aspects of a dynamic and increasingly globalised world economy. It is the backbone of economic system of any given country. In addition to providing food and raw material, agriculture also provides employment opportunities to a large percentage of population. It is the main source of national income for most of the developing countries. A stable agricultural sector ensures a nation of food security.

In India, agriculture sector is the principal source of livelihood for more than 58% of the total population. **However, its contribution to the GDP is disproportionately low in percentage terms.**Economic Survey 2014-15, which highlighted various challenges and reforms in the agriculture sector, indicated that growth rates of productivity in agriculture sector in India are far below global standards. The productivity levels of rice and wheat have declined after the green revolution of the 1980s. **Another issue is soil degradation due to declining fertilizer-use efficiency.**

As President of India ShriPranab Mukherjee said, I quote, **"Agriculture remains central to India's economy. The livelihood security of an incredibly large number of farm families is linked to agriculture. To make farming more remunerative and to transform farmers into agriprenuers, research innovations for low cost technologies, machines and tools are necessary"** unquote.

Agricultural Engineering can make Indian agriculture a sustainable, profitable and competitive enterprise through engineering interventions of farm mechanization, natural resource management, value addition and energy management in production and post-harvest operations. By incorporating automation, precision and smart technologies to new and existing farming equipments, we can optimize efficiency, sustainability and reliability of our produce and enhance our economy.

The whole purpose of development is to create the conditions where people have the dignity and the pride of being self-sufficient. Long term food security is of paramount importance. It can be brought about by infusing wide varieties of low cost advanced technologies in the farming methods through integrated agriculture and engineering approach. Each one of you have to initiate and conceptualize innovative ideas.

I am pleased to know that this conference will cover emerging research and new engineering solutions for food production and related activities. I am confident that through this three-day conference, the State, Region and the Country will be benefited.

In the august gathering of scientists in the field of Agricultural Engineering, I want to put forward some of my personal views as related to the North East in general and Arunachal Pradesh in particular.

The State of Arunachal Pradesh has more than 90% rural population and consequently, the economy of the State is based on agriculture and allied sectors. It contributes around 27% towards State Gross Domestic Product (GDP). Although **we have huge agrarian community in the State, the output from their hard work is not proportionate to their efforts.**The reason being, the use of primitive methods of farming. So, there is a need for enhancing the agricultural production by adopting latest technologies by the farmers and various other stakeholders. Looking beyond the application of known agricultural practices, there is a need for much greater injection of scientific and knowledge-based approach to increase incomes and productivity. **In doing so, we must ensure that environmental issues receive due attention and organic nature of farming remains our USP.**

You will be surprised to know that **Itanagar experiences very heavy rainfall during the year, almost eight months but during winter, there is scarcity of water.** We have to develop rainwater conservation techniques. Watershed approach including soil and water conservation need to be inculcated. We require sustainable water resource management and role of hydrological modelling is paramount. Use of our latest space technologies for natural resource management in the northeast region needs to be explored.Implementation of appropriate soil conservation practices such as proper irrigation and terrace cultivation in agriculture should be mandatory for any cultivation. Such approach will not only help in retaining the soil fertility, but also arrest soil erosion. **Can you take this on as a challenge and come up with a workable solution to this problem of our State Capital,** which can then be applied to the rest of our state and region.

Likewise, many of you must have heard about Ziro, the Apatani Plateau. The tribal community of the plateau has a **unique traditional method of farming and aquaculture.** I would like to suggest the budding scientists to study the traditional and indigenous methods of farming and explore ways to gradually improvise it. Such approach will help the farming communities to adopt new techniques and ideas. You have to understand the psyche of the people as many of them refrain from adopting new techniques.

North East region experiences hot and humid weather, which poses serious problems for post harvest handling. There is a need for value addition through innovation in post harvest technology. Food processing can play a big role. As I said earlier, agriculture also provides employment opportunities to very large percentage of population. There is a **requirement of developing entrepreneurship base in the region and strengthen research and development activities in this field.**

With the whole Nation, people of the State have actively participated in **Swachchh Bharat Abhiyan**. I want to remind you all of the appeal made by our Hon'ble Prime Minister from the ramparts of Red Fort on the Independence Day. 'Charity begins at home' as they say. Therefore, **I want all of you, the students and faculty of NERIST in particular, to live up to the pledge made and make NERIST really 'Swachch'.** Can we do it and make ourselves proud? I am certain WE CAN. Raj Bhawan has always have been advocating for Clean and Plastic Free Arunachal Pradesh. In this context, as the State is in developing Stage, there is a challenge in dealing with domestic waste. A sustainable way of compositing solid waste has to be explored so that it can be used as energy or as compost for agriculture usage.

Likewise there are many such areas calling for attention to effect development in the region. We have lots of expectation from each one of you.**I would like to emphasise on the issue of integrating technology with the local needs.** It should be flexible, adaptable to the local topography, weather, human psyche and affordable. I hope that these factors shall be duly deliberated upon in this Conference.

Mitigation of hunger is a universal fight calling for the cooperation of all nations. **Whenever there has been a challenge to food security in the world, the scientific community with its boundless ingenuity, has been at the forefront of human response.** I am confident that wewill be able to pool the efforts of all its partners productively and overcome the challenges.

As I conclude, I wish all of you for an effective and productive interaction during the conference. I am confident that the presentations by eminent participants will help to harness synergies to make our agriculture more robust.

This remind me of a quotation of Swami Vivekananda who said, I quote ‘We are responsible for what we are, and whatever we wish ourselves to be, we have the power to make ourselves. If what we are now has been the result of our own past actions, it certainly follows that whatever we wish to be in future can be produced by our present actions; so we have to know how to act.’

Thank you.

Jai Hind.