ADDRESS BY THIRU BANWARILAL PUROHIT, HON'BLE GOVERNOR OF TAMIL NADU AT THE 28TH NATIONAL CONFERENCE ON "FARMERS' FRIENDLY SOIL AND WATER CONSERVATION TECHNOLOGIES FOR MITIGATING CLIMATE CHANGE IMPACT" AT RCTC AUDITORIUM, HADP BUILDING UDHAGAMANDALAM ON 31.01.2019 AT 10.30 AM

Anaivarukkum Kaalai Vanakkam

Thiru. M. R. Srinivasan,
Former Chairman, Atomic Energy Commission

Dr. R. C. Agarwal,
Registrar General,
Protection of Plant Varieties and Farmers' Rights Authority

Thirumathi. Innocent Divya, I.A.S.,
District Collector, The Nilgiris

Dr. S. Manivanan,
Principal Scientist,
ICAR-IISWC, RC Ooty

Dr. Suraj Bhan,
President, SCSI, New Delhi

Distinguished Invitees

Ladies and Gentlemen

I am happy to be here at the inaugural function of the 28th National Conference on “Farmer Friendly Soil and Water Conservation Technologies for Mitigating Climate Change Impact” being organised by the Soil Conservation Society of India and the Regional Centre of the Indian Institute of Soil and Water Conservation which functions under the Indian Council of Agricultural Research.

The Indian Council of Agricultural Research (ICAR) which was established in 1929 has been spearheading agricultural research, education and extension activities for productivity enhancement and diversification of Indian agriculture, since its inception. There are 103 ICAR institutes spread

across the country and the Institute of Soil and Water Conservation is one of them. It is head quartered in Dehra Dun and has a regional centre here to cater of the needs of the hilly areas of the Southern part of India.

The Soil Conservation Society of India works for the cause of conservation, development, management and sustainable use of the soil, land, water and associated resources of plants and animals. The focus of society is on the assessment of soil quality and its monitoring through development of environmental indicators like, soil carbon, soil microbial diversity, mineral makeup etc., development of contingency crop

plans and formulation of regional mitigation strategies to address changing climatic conditions.

Soil and water conservation technologies have been the major driving force for increasing agricultural productivity and development in India.

Soil degradation in India is estimated to be occurring on 147 million hectares of land, including 94 million hectares on account of water erosion, 16 million hectares due to acidification, 14 million hectares from flooding, 9 million hectares from wind erosion, 6 million hectares from salinity, and 7 million hectares from a combination of factors. This is extremely serious because India supports 18% of the world's human population and 15% of the world's livestock population, but has only 2.4%

of the world's land area. Causes of soil degradation are substantially human-induced by nature.

Human-induced soil degradation results from land clearing and deforestation, inappropriate agricultural practices, improper management of industrial effluents and wastes, over-grazing, careless management of forests, surface mining, and commercial / industrial development. Inappropriate agricultural practices include excessive tillage and use of heavy machinery, excessive and unbalanced use of inorganic fertilizers, poor irrigation and water management techniques, pesticide overuse, inadequate crop

residue and/or organic carbon inputs, and poor crop cycle planning.

The Hydrological behavior of water domains are getting altered due to climate change and this will play a crucial role in managing water resources.

Water use has been growing globally at more than twice the rate of population increase in the last century, and an increasing number of regions are reaching the limit at which water services can be sustainably delivered, especially in arid region. Around 1.2 billion people, or almost one-fifth of the world's population, live in areas of scarcity. Another 1.6 billion people, or almost one quarter of the world's population, face water shortage

because countries lack the necessary infrastructure to take water from rivers and aquifers.

The global demand for water has been increasing at a rate of about 1% per year over the past decades as a function of population growth, economic development and changing consumption patterns. At the same time, the global water cycle is intensifying due to climate change, with wetter regions generally becoming wetter and drier regions becoming even drier.

In India, water availability per capita has declined from 5000 cubic metres (m3) per annum in 1950 to around 2000 m3 now and is projected to decline to 1500 m3 by 2025 leading to far less

water availability for agriculture. The water availability for agricultural use has reached a critical level as the country uses more than 80 per cent of the surface water for irrigation. India is the largest user of groundwater in the world with over 60 per cent of irrigated agriculture and 85 per cent of drinking water supplies dependent on aquifers.

Soil conservation measures, such as contour ploughing, bunding, use of strips and terraces, can decrease erosion and slow runoff water. Mechanical measures, e.g., physical barriers such as embankments and wind breaks, or vegetation cover and soil husbandry are important measures to control soil erosion. Farm ponds, percolation ponds and check dams also increase availability of

water for agriculture besides raising the ground water table.

Integrated watershed management, which involves soil and water conservation coupled with suitable crop management, is another excellent strategy for mitigating soil erosion. Integrated management of natural resources viz. land, water, vegetation and live stock on watershed basis following a participatory approach has been accepted as the most effective approach for sustainable production and development.

Our ancestors knew the practice of sustainable development. That is the reason India has had a continuing civilisation for more than 5000 years. The agricultural practices were sustainable. The

needs of the people were limited and contentment was the principle that was admired, appreciated and propagated.

In the last 200 years, we have had many technological innovations that have improved the standard of living. The use of electricity, use of vehicles for transportation and the use of gadgets to improve communication have definitely helped to make our living conditions better. But it is important to draw the line so that we do not exceed limits.

That is why the nations of the world met at Paris in December 2015 to control carbon emissions. Global warming resulting in Climatic change is emerging as a major problem and

threatens to wipe out large populations if left uncontrolled.

Today’s conference will provide the platform to create an interface among academicians, researchers, government departments, policy makers, farmers, industry and other stake holders involved in soil and water conservation. The following themes are proposed to be addressed at the conference.

1. Climate change impact on soil and water resources.
2. Farmers' centric technologies towards controlling soil erosion / degradation / mass erosion and policy implications.

3. Water harvesting and its multiple use in climate change scenario.
4. Integrated watershed management - Crop production systems, collective farming and marketing linkages.
5. Impact assessment of soil and water conservation technologies and application of advanced tools.
6. Bio diversity conservation and climate change.
7. Soil biodiversity and biological diversity Act 2002 focusing declining population of earth worm.
8. Resource conservation measures for Horticulture, plantation crops & forestry.

9. Mechanized soil & water management, precision farming & utilization of renewable energy.
10. Disaster management, Landslide mitigation measures and Rehabilitation of heavy metal contaminated soil.

The deliberations of the conference will be useful to prepare the road map for developing farmer friendly soil and water conservation technologies for mitigating climate change impact on soil and water resources.

I should appreciate the Regional Centre of the Indian Institute of the Soil and Water Conservation and the Soil Conservation Society of India who

have come together to organize this National Conference.

Let us remember that the human race is dependent on Nature for survival. Soil, water and air are visible manifestations of Nature. Let us learn to conserve them for the future of mankind. Mankind has no answer for the fury of Nature. Cyclones and floods bring in devastation, Tsunamis wreak destruction, Droughts and famines cause starvation and death. It is also important to remember that diseases such as diabetes, cancer, etc. which are caused by unnatural lifestyles are on the increase. Let us therefore remember to be conscious of the delicate balance in Nature. Let us contribute our

mite to restore the balance by changing our lifestyles.

I wish to conclude with these words of wisdom. “Nature is not an inheritance from our ancestors but a borrowing made from succeeding generations.” It is our duty to preserve Nature and bequeath its resources to succeeding generations in a manner that is sustainable, by following an eco-friendly path.

Nandri Vanakkam…

Jai Hind…