पवन कुमार बंसल PAWAN KUMAR BANSAL





संसदीय कार्य एवं जल संसाधन मंत्री भारत सरकार नई दिल्ली-110001 MINISTER OF PARLIAMENTARY AFFAIRS

WATER RESOURCES
GOVERNMENT OF INDIA
NEW DELHI-110001

MESSAGE

14 528 2010

India experiences vast disparity of rainfall. We have areas where the annual rainfall is of the order of 11,000 mm whereas certain areas like Rajasthan receive an average of 110 mm of rainfall. Such huge variation on temporal and spatial scale makes the challenge of Water Resources Management extremely difficult. The areas which are affected by drought suffer every year leading to loss of lives, agriculture and livestock. The impact of climate change on water resources can make the task more formidable. This calls for concerted efforts, focused research and its ground level application.

I am happy to know that 14th National Symposium on Hydrology with focal theme "Management of Water Resources under Drought Situation" is being organized by the National Institute of Hydrology, Roorkee and Malaviya National Institute of Technology, Jaipur in Jaipur during 21-22 December, 2010.

I hope that deliberations planned for the 14th National Symposium on Hydrology will come up with important recommendations and guidelines for better management of water resources of our country.

(Pawan Kumar Bansal)

वींसेंट एच. पाला VINCENT H. PALA





जल संसाधन राज्य मंत्री
भारत सरकार
श्रम शक्ति भवन
नई दिल्ली-110001
MINISTER OF STATE FOR
WATER RESOURCES
GOVERNMENT OF INDIA
SHRAM SHAKTI BHAWAN
NEW DELHI-110001

Dated the 9th December, 2010

<u>MESSAGE</u>

I am happy to convey my compliments to the organizers and participants of the 14th National Symposium on Hydrology with focal theme on "Management of Water Resources under Drought Situation" being organized by the National Institute of Hydrology, Roorkee and Malaviya National Institute of Technology, Jaipur in Jaipur during 21st – 22nd December, 2010.

We are aware that there is a need for proper planning, development and management of the greatest assets of the country viz. water and land resources for raising the standards of living of the millions of people particularly in the rural areas. Frequent droughts are one of the major problems which affect all sections of the society and particularly the farmers of the country. It is expected that the deliberations and knowledge sharing by the professionals shall be beneficial in achieving the appropriate water resources management to meet the challenges posed by the drought occurrence year after year in various parts of the country.

I expect that deliberations planned for this symposium will yield appropriate strategies for management of water resources for coping up with drought situations in various parts of our country.

I wish all success for 14th National Symposium on Hydrology.

(Vincent H. Pala)

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MESSAGE

I am pleased to convey my warm greetings to all the participants of the 14th National Symposium on Hydrology with focal theme on "Management of Water Resources under Drought Situation". I congratulate National Institute of Hydrology, Roorkee and Malaviya National Institute of Technology, Jaipur for organizing the Symposium on this important focal theme.

We are aware that the availability of water resources in our country is highly variable both in space and time. Occurrences of droughts often cause depletion of water availability and lead to significant water stress to regional economic activities and cause immense sufferings to the society. Over the years India has developed a fairly elaborate governance system of institutionalized drought monitoring and mitigation at different levels. This has played a crucial role in averting large scale distress in the drought affected areas.

This Symposium will provide a platform to exchange views and share knowledge for building a road map for achieving improved water resources management to cope up with water scarcity during drought. I am confident that the deliberations and the outcome of the technical sessions of this Symposium will provide guidelines for future planning and management of drought situations.

I wish all success in the accomplishment of the objectives of this Symposium.

(Dhruv Vijai Singh)

ए. के. बजाज अध्यक्ष

A. K. Bajaj

CHAIRMAN, CWC
& ex-officio Secretary
to the Govt. of India

Ministry of Water Resources



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MESSAGE

It is a matter of great pleasure that National Institute of Hydrology, Roorkee is organizing 14th National Symposium on Hydrology in association with the Malaviya National Institute of Technology, Jaipur under the auspices of the Indian National Committee on Hydrology, Ministry of Water Resources, with the focal theme of "Management of Water Resources under Drought Situation".

Drought is the natural disaster that affects maximum number of people and their livelihood world over. The Indian sub-continent is predominantly characterized by the tropical monsoon climate which has considerable temporal and spatial variation in rainfall, with the result that one or other part of country is facing problems of drought every year. Intensity and frequency of such extreme weather events is likely to increase due to global warming and climatic change. The vulnerability to drought in relation to the increasing needs of the growing population has become a point of great concern, especially on the food security front.

The escalating impacts of droughts have increasingly drawn the attention of engineers, scientists, planners and society. The development of appropriate drought management strategies is of great importance to minimise its impacts. We need to respond to drought situations through proactive, coordinated strategies designed to mitigate the impacts rather than ad-hoc strategies and crisis management approach. It is essential that experiences in the field should be supplemented with the latest development in the technological sphere to evolve a system of development suitable to our needs.

I am confident that the Symposium on Hydrology being organized on 21^{st} and 22^{nd} December, 2010 at Jaipur will provide a platform for all professionals and experts in the field to deliberate on the various water management techniques and strategies to deal with drought situations.

I wish all success to this endeavor.

(A K Bajaj)

जी. मोहन कुमार G. MOHAN KUMAR





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10th December, 2010

नई दिल्ली NEW DELHI

MESSAGE

It gives me immense pleasure to know that the 14th National Symposium on Hydrology with focal theme on 'Management of Water Resources under Drought Situation' is being organized by the National Institute of Hydrology, Roorkee and Malaviya National Institute of Technology, Jaipur in Jaipur during 21-22 December, 2010.

With rapid growing population and improving living standards, the pressure on our water resources is increasing and per capita availability of water is decreasing day by day. Due to spatial and temporal variability in precipitation, the country faces the problem of flood and drought syndromes. Over exploitation of ground water is leading to reduction of low flows in the rivers, declining of the ground water resources and salt water intrusion in aquifers of the coastal areas. The climate change is expected to affect precipitation and water availability. It is essential to develop appropriate strategies for sustainable development and management of the water resources for meeting the demands of the present, without compromising the needs of future generations.

The symposium is a commendable effort to bring together hydrologists, engineers and scientists on a common platform for meaningful exchange of ideas on this important topic. I hope and trust that this will provide an opportunity for experts from different parts of the country to share their knowledge and experience fruitfully.

On this occasion, I extend my warm greetings and best wishes to the organizers as well as participants and with the symposium all success.

(G. MOHAN KUMAR)