



(al/0900/kmr)

MADAM CHAIRMAN (SHRIMATI MARGARET ALVA): Hon. Dr. Yallabhbai Kathiria, Convener, Parliamentary Forum on Water-Conservation and Management; Dr, K. Kasturirangan; hon. Members of Parliament and Friends:

It gives me great pleasure to welcome you all today to the eleventh lecture in the lecture series being organized for Members of Parliament. Today's is the fourth lecture on water conservation and related issues organized jointly by the Bureau of Parliamentary Studies and Training and the Parliamentary Forum on Water Conservation and Management.

Hon. Speaker is unable to be present here this morning due to his pre-occupation with a Parliamentary meeting. The constitution of the Parliamentary Forums as also the Lecture Series are initiatives taken by the hon. Speaker to encourage more focused attention by the hon. Members of Parliament on topical issues.

We have in our midst Dr. Vallabhbai Kathiria, who, in his capacity as the Convener of the Parliamentary Forum on Water Conservation and Management, has been striving hard for realizing the goals and objectives of the Forum. I extend a warm welcome to Dr. Kathiria.

As I said earlier, the Parliamentary Forum on Water Conservation and Management was constituted on the initiative of our hon. Speaker, in August last year, to specifically address issues related to water conservation and management in our country. We have had three lectures on water conservation and related themes delivered by distinguished environmentalists, scientists and experts in the field. These lectures were very well received by the hon. Members of Parliament. Considering the importance of the issue, it is only appropriate that we have another lecture today on issues relating to water conservation and management which is being delivered by hon. Dr. Kasturirangan, who is also a member of the Parliamentary Forum on Water Conservation and Management.

Dr. Kasturirangan, who holds a Ph.D. in Astronomy and Astrophysics, is a well-known scientist and a technocrat who has served various prestigious scientific Departments in different capacities, which include Project Director, Bhaskara I & II, Indian Space Research Organization, Satellite Centre, Bangalore; Secretary, Department of Space, Government of India; Chairman, Space Commission; and Chairman, Governing Body, National Remote Sensing Agency, Hyderabad. He has also served as Member, Consultative Committee of the Ministry of Human Resource Development; Member, Committee on Energy; and Member, Library Committee.

Dr. Kasturirangan has contributed around 220 highly acclaimed scientific papers in reputed national and international journals. He has also co-authored and edited several books and journals, including *The Aryabhata Project* published by the Indian Academy of Sciences in 1979; and *Perspectives in Communications*, published by the World Scientific in 1987. He has also delivered a large number of public and Memorial Lectures, including the M.N. Saha Memorial Lecture of the National Academy of Sciences and the J.C. Bose Memorial Lecture at the Royal Society of London. For his scientific accomplishments, Dr. Kasturirangan was awarded the *Padma Shri* in 1982, *Padma Bhushan* in 1992, *Padma Vibhushan* in 2000 and the Officer of the Legion d'honneur by the President of France in 2002, besides of course coming to-Parliament

In his capacity as member of this Parliamentary Forum since 2005, Dr. Kasturirangan has been stressing a scientific approach to develop ground water development strategy on a sustainable basis and also the incorporation of watershed technology in our water conservation programmes. I am sure he will not only enrich all of us with vital information and invaluable facts in the area of water conservation and management, but will also delineate ways and means to popularize on a national scale, the techniques involved in meeting the challenges posed by the present water crisis.

Friends, on March 22, 2005, on the eve of the World Water Day, a new International Decade for Action - *Water for Life 2005-2015*, was unveiled by the United Nations to focus primarily on water-related issues and to achieve water-related goals of the Millennium Declaration, and the Johannesburg Plan for Implementation of the World Summit for Sustainable Development and Agenda 21. As you all know, one of the major targets of the Millennium Development Goals is to halve by 2015, the proportion of people without sustainable access to safe drinking water and adequate sanitation. The population growth across the world is exerting a tremendous pressure on the available fresh water reserves. The utilization of water for drinking, sanitation, agriculture and for industrial use is also witnessing an alarming increase. In our country too, the water crisis is looming large. As such, we need to adopt drastic measures to ensure water conservation and management. Besides existing techniques like rainwater harvesting and watershed development, the scientific community has to come up with new and more effective methods to conserve water on a large scale. Dr. Kasturirangan will present us with his valuable insights and deep knowledge on water conservation and management methodologies through this Lecture.

I must mention here that both of us were involved in a pilot project on the Western Ghats which was part of my Constituency. I must say, and he will bear me out, that in spite of all the efforts and all the support from the Science Departments, we were unable to take off because somehow the administration at the ground level in this country does not seem to be very interested in finding permanent solutions. Rajivji used to say there are three budgets - the plan budget, the non-plan budget and the disaster management budget; and that the disaster management budget out-shadowed the other two because everybody had a finger in the pie when it came to the third budget. Therefore, I have found most administrations - there are exceptions you will hear about the Gujarat experiment and so on - are not really interested in finding permanent solutions either to

drought or to floods when it comes to actual implementation of all the recommendations that are made to us.

I warmly welcome you, Sir, and thank you for your presence here this morning. I welcome all the hon. Members of Parliament - I know it is difficult in the morning, for all of you to get here so early but the interest has been growing and we are grateful for your support - and the officials who are here, and hope that you will all go back with concrete ideas for follow up action in your constituencies and in your respective areas of work.

Thank you very much.

CONVENOR (DR. VALLABHBHAI KATHIRIA): Hony. Advisor of BPST, Shrimati Margaret Alva; Dr. K. Kasturirangan, hon. Member of Parliament (Rajya Sabha) and member of Parliamentary Forum on Water Resources and Management, and today's Chief Guest to deliver a lecture; hon. Members of Parliament; Shri Rajagopalan Nair, Additional Secretary, Lok Sabha Secretariat; ladies and gentlemen:

(b/925/vp)

I am indeed pleased to welcome all of you here this morning on the Lecture Session on issues relating to water conservation and management. The importance of this subject can hardly be over-emphasized. We, the Members of Parliament, attach a great deal of -importance -to..the-conservation, and efficient utilization of water. Keeping in view the gravity of the situation and scarcity of potable water, hon. Speaker, . Lok Sabha constituted a Parliamentary Forum on Water Conservation and Management in August 2005. In pursuit of our endeavour, we have already had two lectures on water conservation - one by Ms. Sunita Narain, Director, CSE and another by Shri Rajendra Singh. We also had screened one film on water, directed by Ms. Aruna Chakraboity, in March 2006.

I am confident that today's lecture by yet another well known expert in the field of remote sensing for national development and also a Member, Parliamentary Forum- on Water Conservation and Management, Dr. K.

Kasturirangan will enlighten us especially on issues relating to water conservation and management.

With these words, I am happy to welcome Dr. K Kasturirangan and request him to share his insights on the subject on which he is extremely knowledgeable. I am sure that those who are present here will find the interaction with him very rewarding and informative.

Now, I request him to start his lecture, after which we will have the question-answer session. Thank you very much.

DR. K. KASTURIRANGAN: Shrimati Margarat Alva Ji, Dr. Kathiria Ji, hon. - Members of Parliament and esteemed invitees,

At the outset, I would like to express my grateful thanks to Shri Somnath Chatterjee, hon. Speaker, Lok Sabha, Shrimati Margarat Alva as well as Dr. Kathiria, for giving me this privilege of talking about a subject on which I am really not an expert, but as a person who has been associated with the space programme I would like to say something. With the space programme playing a very significant role in terms of several issues of resource detection, monitoring and management, we picked up the questions which are "related to water - ground water and surface water.

In this context, whatever familiarity that we developed in the context of water management, I thought! would share it with the members here, using this unique opportunity, I should especially express my very grateful thanks to the hon. Speaker who could not be present here. He called me yesterday night and informed me about his inability to be here with us. But he wished the discussions to turn out to be very fruitful.

I should say that it was he who encouraged me to speak on this subject in this august forum. So, I recall the discussions with him- in this context with gratitude and would like to note here that I owe to him for this morning's presence here of all of you and myself, in sharing the experiences.

As Shrimati Alva mentioned, 21<sup>st</sup> Century is going, to be a century where water is going to be discussed a lot which is going to be an area of concern. There are solutions which are innovative, to be sought with respect to dwindling resources vis-a-vis, the population increase. I will not go into the details of that, many of you are more familiar than me in the context of what-the issues are. But what I would like to say is that space technology, over the years has come to play a very clear' cut role which is effective and probably for which there is no substitute in many cases; and in other cases it plays a very effective complementing approach to the dealing of water related issues.

What I would like to do is to cover a set of applications to which space technology has been used in our country, in the context of water resources, management, monitoring, etc. and to give you the flavour of a rather wide canvas - actually it is rather a wide canvass because I will touch upon several issues. But there are issues which are related to water or hydrological systems. But at the same time, this will give a flavour of what the space capability is and what it could deliver to this country in the context of concrete information systems, in the context of concrete approaches for management and strategy and particularly when we are concerned about sustainability of the use of water.

With this, I would like to start with the presentation.

(Slides -were-shown and-explained.)

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(Vote of Thanks)