



# WMO FEATURE

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## THE WORLD OF WEATHER AND WATER

### Point Of View

Interview with Dr. Erkki Jatila  
Director, Technical Co-operation  
World Meteorological Organization

by Dr. Sylvia Moore

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Interview with Dr. Erkki Jatila  
Director, Technical Co-operation (WMO)

by Dr. Sylvia Moore  
Public Information and Press Office (WMO)

Dr. Moore: With me in the studio today is Dr. Erkki Jatila, formerly the Director-General of the Finnish Meteorological Institute at Helsinki and now Director of the Technical Co-operation Department of the World Meteorological Organization at Geneva. Dr. Jatila what exactly is your background in meteorology?

Dr. Jatila: I started my career at the Finnish Meteorological Institute as weather forecaster for a few years, then I worked for the University for ten years. In the late seventies, I had the opportunity to work for WMO for five years and after that in the eighties I became the head of the Finnish Meteorological Service in Helsinki. A year ago I re-joined the WMO.

Dr. Moore: You are involved in Technical Co-operation. How many projects do you have around the world?

Dr. Jatila: We are implementing various types of projects in a hundred and thirty-three countries at the present time.

Dr. Moore: What are you trying to achieve through these projects?

Dr. Jatila: The role of WMO Technical Co-operation Programme is to try to help the national Meteorological Services, in especially developing countries to accomplish their objectives. This means that we assist them to collect the basic weather observations daily at regular schedules. We also help them to process the data and exchange them with the rest of the world. Many of our projects are also aimed at improving the quality of the products the national Meteorological Services provide to the government agencies in their country or to the public. Of course we are also involved in projects related to climate change.

Dr. Moore: You just returned a few days ago from several Asian countries, Bangladesh, Nepal and Thailand. What was the purpose of your visit?

Dr. Jatila: The main purpose was to review some of our on-going projects there as well as to discuss with government officials their needs for the future and to discuss the same with the UNDP Representatives in these countries.

Dr. Moore: Bangladesh has been very much in the news recently. What impressed you most during your visit there?

Dr. Jatila: I would say that the general impressive characteristic was the presence of water everywhere. If you drove through the countryside for instance, if you found a minor depression on the ground, then it was sure to be full of water. The water level in the rivers was very close to the level of the roads next to the river, so that the presence of water was definitely the most evident thing I saw there.

Dr. Moore: This of course relates very closely to the view of climate change experts that Bangladesh is one of the countries which would be most threatened by sea level rise as a result of climate change. Recently there was a cyclone in Bangladesh in April. What was the role of the Hydrological and Meteorological Services in mitigating the effects of the cyclone?

Dr. Jatila: They played a very essential role indeed. They were very skillful in forecasting the movement of the cyclone at the end of April. Already, actually a week before the cyclone hit the coast, the first warnings were issued about the existence of a cyclone in the vicinity. Then a couple of days before the critical time, the actual danger warning was issued.

Fortunately therefore the government and the local authorities had enough time to start the evacuation process. Nevertheless as we have heard and read in the news media, more than one hundred and forty thousand people died in that catastrophe and there were major economic losses as well.

Dr. Moore: Is the World Meteorological Organization doing something to assist countries in flood and emergency problems?

Dr. Jatila: Yes indeed. We are implementing natural disaster related projects in many countries all over the world. For instance in Bangladesh one of the main reasons of my mission there was to review the success and progress of a project in a flood forecasting system to be established. Because of this project, the flood forecasting centre operated there quite successfully and they were issuing daily the forecast for the water level in the major rivers in Bangladesh, by giving warnings should the water level approach the danger level.

Dr. Moore: Has a special fund been established for such purposes?

Dr. Jatila: Last May after the Bangladesh cyclone disaster, the WMO Congress established the Emergency Assistance Fund. The purpose of this fund is to assist the Members to meet their urgent needs in time of emergency, e.g., to help the national Meteorological Services to rebuild their infrastructure if a natural disaster strikes - flood, cyclone, earthquake or whatever. If that infrastructure has been destroyed, then the re-establishment of that Service can be assisted through that fund.

Dr. Moore: Can we return to your concern for climate change issues and look into ways of introducing clean energy? When you were in Nepal you looked at some projects dealing with introducing hydro-power. What kind of problems were there in relation to implementing such projects?

Dr. Jatila: Nepal being a mountainous country, is very rich in hydro-power if only that energy form can be exploited properly. In order to do that, we hope to have projects for better water management and assist authorities to build dams, for holding good reservoirs for instance. The distinct problem in Nepal in this respect is sedimentation. The rivers carry huge amounts of sediments and this sediment movement is not well known today. Nor are the patterns of the movement known. Therefore a project is needed to help to estimate the sediment load.

Dr. Moore: It is clear that Meteorological and Hydrological Services have an important role to play in many aspects of our daily lives. Take agriculture for instance. What projects do you have in that area which would contribute to improving high yields in food production?

Dr. Jatila: In many countries, we have agrometeorological projects through which we try to help national Meteorological Services to assist in the agricultural production by providing meteorological information and forecasts for agriculture. A very good example of a success story in this respect is a project in Africa, in sub-saharan Western African, the so-called CILSS countries.

These nine countries established a centre called the Agrhymet Centre for providing agrometeorological and hydrological information. The project began in the mid-seventies so it has been operational already for more than ten years.

Dr. Moore: Throughout those ten years you must have some statistics about improved yields of specific crops?

Dr. Jatila: Yes. We had what we call pilot projects in particular in Mali and Burkina Faso, whereby we tried to find out what the benefits really are of the specialized services for agriculture provided through the project. It was found that for the plots which used the specialized services, the yields were about twenty-five to thirty per cent higher than in the neighbouring plots which used traditional agricultural practices.

Dr. Moore: What were the crops?

Dr. Jatila: In these experiments we concentrated on millet and sorghum production.

Dr. Moore: Water management is fundamental to human life. You have a project in the Niger River basin which also covers several countries. How does water management operate?

Dr. Jatila: Eight countries through which the Niger river flows decided that the management of the use of the water should be agreed upon. Through our project water level measurements of the river are organized. Then all the governments are informed of the water situation in the river. The water is used according to the water situation, and to agreed procedures.

Dr. Moore: Let's move from water to other elements such as sun and wind. Solar and wind energy are important new energy sources. You are trying to incorporate such energy sources in projects in the SADCC countries of Southern Africa. How does that work?

Dr. Jatila: We have included the use, or the availability of the wind and solar energy in many of our projects, not only in SADCC but also in other countries as well. In practice it means that through the project the potential for these energy forms is determined. Then the government energy planners can assess in which part of the country and where solar or wind energy production would be economically feasible.

Dr. Moore: Technical assistance is effective when you have trained manpower to operate the very sensitive equipment which you would need for these activities. What are you doing in the area of training?

Dr. Jatila: In addition to training government experts to operate the equipment provided under the projects, we also have a special training programme financed through our Technical Co-operation Programme as well as the Education and Training Programme. This means that we have near to one hundred trainees abroad at anytime in various universities to acquire basic training in meteorology. After studying for a few years they return to their national services and make their contributions to the development of their own nation.

Dr. Moore: You have covered specific projects in countries and some projects which cover several countries. You also have a regional project called ACMAD. What does that stand for?

Dr. Jatila: ACMAD is the abbreviation for African Centre for Meteorological Applications for Development. This is a project, of the Economic Commission of Africa (ECA) and WMO, covering all African nations. It is a centre which will operate from Niamey, Niger, and it will provide meteorological and hydrological specialized products to a number of sub-regional centres in meteorological and hydrological in Africa as well as to national Meteorological and Hydrological Services in Africa. So it is a major undertaking which within a few years hope will help improve the quality of meteorological products in Africa.

Dr. Moore: In your work you must have much to do with government officials in development co-operation. What preoccupations do they have with regard to climate change?

Dr. Jatila: At this stage, in most cases, officials understand now that global climate change will take place. The regional and local impacts are their major concerns.

Dr. Moore: What kind of local impacts are envisaged?

Dr. Jatila: There are and there will be many local impacts even though at this present stage we know much less about local changes than global ones. During my last mission to Asia for instance, all the government officials I met were very concerned about how climate change will change the monsoon system, and about questions such as would there be a likelihood of weaker monsoons in the future? Is the timing likely to change, and so on? In other parts of the world, people are more concerned about the likelihood of increased drought. In some places there is fear of too much rain, not to mention sea level rise which you already mention earlier.

Dr. Moore: As we are talking now, the United Nations Conference on Environment and Development is holding PrepCom III. At the other end of the building of the Palais des Nations, working groups are preoccupied with inter-related issues of deforestation, climate change, biodiversity and how these may affect environment and development. This is a global problem - a planetaring problem. How do you see this in relation to your programme?

Dr. Jatila: Through the Technical Co-operation Programme, WMO seeks to help governments as much as possible to tackle climate change and global change related issues. I would like to take some very concrete examples of what we have been doing during the last years. The first example is our CLICOM project. That is the Climatological Data Computing System which is a personal computer based system already delivered to almost one hundred countries. This project helps the national Meteorological Services to establish climatological data bases and to know what kind of climate that country has had in the past. That very basic information is needed in order to try to predict what will happen in the future.

Another very successful project we are implementing is the Data Rescue project for collecting all the old weather observations. In many developing countries weather observations have been made for more than one hundred years, but that data is not actually being used effectively. It is in log books and so on. Through this project we collect the data and transform it into the computer compatible format for use by the national authorities in the originating country as well as internationally. So these are the examples of the past projects we are implementing which are directly related to climate change.

Dr. Moore: What is the GEF project?

Dr. Jatila: GEF is the abbreviation of the Global Environment Facility which is a fund established jointly by the World Bank, UNDP and UNEP and managed by these organizations. UN Member governments have made funds available. The size of the fund now is 1.4 billion dollars. WMO plans of how to apply for the use of that fund are manifold.

We have one project already approved for funding from this source and that has to do with the measurements of the greenhouse gases. There would be additional stations established to measure the greenhouse gases also in the developing countries. Right now we are preparing proposals for GEF funding to improve the monitoring of the atmosphere in the developing countries.

Through this source of funding we hope we will be able to improve our observing capabilities in many of the developing countries so that the uncertainties in climate change predictions can be reduced especially at the regional and national levels.

Dr. Moore: Presumably that will help towards maintaining the balance between sustainable environmental goals and those of improving economic development. How do you think that could work effectively?

Dr. Jatila: It could indeed work effectively but one needs a new type of thinking. Meteorology can help in reducing the burden to nature by man. If we take just one example. The use of fertilizers is very much dependent on the timing of fertilizer application, and if the timing is the best possible, then the increase in the yield is much better than if the timing was inaccurate. Meteorological information can assist in determining the best possible timing. Therefore agrometeorological projects can be used directly for assessing the time for using fertilizers, thereby reducing their use, with benefits to the environment as well.

Dr. Moore: How do you finance your programmes?

Dr. Jatila: About one half of our projects are financed by the United Nations Development Programme (UNDP). Others are supported by various donor agencies with whom we have special agreements defining for which purpose the trust funds are used, as well as from the WMO Voluntary Co-operation Programme (VCP) where support is provided by WMO Members. In addition, there are also provisions under the WMO regular budget for fellowships and support to training activities.

The total volume of WMO Technical Co-operation support to developing countries now is about thirty million dollars annually. We understand that there is also bilateral assistance as well in meteorology and hydrology.

Dr. Moore: Can countries become economically self sufficient in maintaining their services?

Dr. Jatila: It is always the objective, that projects support a certain established activity in the country for the first couple of years or so and then the national government is supposed to carry on operating the equipment donated.

However, recently because of the economic situation in many countries, the governments have found it more and more difficult to do so. Therefore we try to arrange support for running the equipment donated for longer periods than just a couple of years. But the principle and the intention is that after the completion of the project governments will continue operating or keep running activities established during the project.

This is of course very much dependent on the economic situation in a particular country and also on how important the governments see the products of the project. Where the government appreciate the role of meteorology and hydrology in the development of many sectors in their countries, adequate national support are provided.

Dr. Moore: Thank you very much Dr. Jatila for a most fascinating account of what you are doing in your programme. That was Dr. Jatila, the Director of the Technical Co-operation Programme of the World Meteorological Organization speaking to Sylvia Moore at the studio at the United Nations at Geneva.

Dr. Jatila: Thank you very much.

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