



World Food Security: The Challenges of Climate Change and Bioenergy

MESSAGES

Aisif Ali Zardari, President of Islamic Republic of Pakistan



I am delighted to know that the theme of this year's World Food Day - "World Food Security: The Challenges of Climate Change and Bio-energy" covers all main issues faced by agro-based economies. We all know that under the ongoing scenario of soaring food prices the complex supply and demand situation of commodities has created a number of difficulties in achieving food security. The main food grain growing countries are entering into bio-energy regime and creating a divide between countries striving for food security and countries ensuring energy security through bio-energy. This is upsetting as worldwide growth in bio-energy is diverting huge quantities of food grains into bio-fuel production. Resultantly, the food grain and livestock products have experienced unprecedented price increase, placing food-importing countries on disadvantage. Continuing rising trend in the energy prices have further aggravated this situation.

The climate change has emerged as a grave challenge to sustainability of agricultural production and achieving food security. Drought cycles and erratic change in temperatures has badly affected the performance of crops and livestock sub-sectors. Our last year wheat crop was affected by the incidence of frost at earlier stage of crop growth and high temperature stress at the crop maturity and grain formation stages causing production losses. This situation indicates that without addressing climate change issues the sustainability of agricultural production and ensuring food security would remain infeasible.

FAO deserves appreciation for highlighting the key areas of concern first by holding the High Level Conference on "World Food Security: The Challenges of Climate Change and Bio-energy" (Rome: 3-5 June 2008) and now identifying this theme for World Food Day on October 16, 2008. World Food Day has special significance for Pakistan as agriculture plays vital role in the well being and economic betterment of our people. Contribution of agriculture to gross domestic product (GDP) is 21 percent and 44 percent of work force is employed in this sector. It has been designated as the engine of national economic growth and basic instrument in achieving food security and reducing poverty. On the eve of the World Food Day 2008 we renew our pledge of ensuring food security for our country and to initiate interventions to overcome the challenges of climate change and bio-energy for a progressive and sustainable agriculture sector.

Syed Yousaf Raza Gillani, Prime Minister of Islamic Republic of Pakistan



It is heartening to know that Pakistan joins the international community to observe the World Food Day (WFD) every year. Today this event is being observed worldwide to highlight the role of international agencies, United Nations' organizations, NGOs, agriscientists and farming community to address the issues related to the theme of WFD this year: "World Food Security: The Challenges of Climate Change and Bio-energy". Climate changes affect agricultural performance by altering the availability of water, land, biodiversity and territorial ecosystem, and also enhances the uncertainties throughout the food chain, from yield to trade dynamics among countries and ultimately the global economy. Bio-energy places further demand on agricultural products as well as on the natural resources.

Climate affects everyone but the worst hit will be hundreds of millions of small farmers, fishermen and forest-dependent people who are already vulnerable and food insecure. The diminishing availability of land, water and bio-diversity, coupled with the soaring price of food and rising demand for bio-fuels produced from food crops also have negative impact on the poor. Globally, agriculture consumes 70 percent of water withdrawals whereas in Pakistan its contribution to irrigation is more than 90 percent. The major source of our water is the Indus river system, originating from the glaciers, which are under severe threat due to climate change. The impact of climate change on glaciers has already been noticed in shape of their recession in the global context food should not be used as an instrument for political and economic pressure. I expect that the Climate Change Adaptation Fund should reflect the principles of equity, differentiated responsibility and capacity building along with a balanced representation of all stakeholders in decision making. I hope that the new framework for action on climate change would fully protect and promote the socioeconomic development in developing countries. I expect that the ongoing negotiations in pursuance of the Bali Roadmap will integrate global food and energy security imperatives.

Our government has taken in a number of steps to ensure provision of adequate and affordable food to its people, especially the poorer and most vulnerable segments of the population. The government has also initiated efforts to revise the

Continued on Page 2

Nazar Muhammad Gondal, Minister, Food, Agriculture & Livestock



Access to food is highly uneven in today's world. The impact of climate change is likely to make the situation even worse. Although there is overproduction and over-consumption in certain areas, yet millions of people are experiencing food insecurity, malnutrition and hunger. It is very clear that there are serious flaws in a food system that globally serves more than 650 million people under nourished and over 1 billion overweight. Some 2 billion people also suffer from vitamin and micronutrient deficiency. Under-nutrition in pregnant women and young babies can have irreversible effects on life. Under this scenario of trade dynamics among countries and ultimately the global economy. Bio-energy places further demand on agricultural products as well as on the natural resources.

It is now universally accepted that human activities do affect climate, one important component of the environment. Climate in turn affects agriculture, the source of all food consumed by human beings and domestic animals. The predicted changes in climate including changes in global rainfall, temperature patterns together with the established increase in atmospheric CO₂ will have great impact on world agriculture production systems and supply patterns. In order to ensure that agriculture production is sufficient to meet the demands of the ever-growing human population the impact of the climate must be understood and integrated in any future planning.

Pakistan having the current population of 160 million growing at 2.2 percent is expected to have more than 230 million people by the year 2030. Agricultural productivity is to be planned to enhance twice in limited cropping area to feed the growing population during next two decades and that is only possible through vertical improvement. Agriculture being the only sustainable contributor to national GDP has always been unique in national economy for providing food security to the masses. Considerable improvements in cereals (1% per annum) and cotton (2% per annum) have been achieved since Independence by deploying resources which were meager in terms of finance and manpower. It is the time to intensify the investment in agriculture sector aiming at improving the R & D, strengthening extension services, natural resource conservation and rural infrastructure to meet the challenges of rapidly changing

Continued on Page 2

Mohammad Zia-ur-Rehman, Secretary, Ministry of Food Agriculture and Livestock



The theme of this year's World Food Day is World Food Security with special reference to the "challenges of climate change and bio-energy". This theme is highly appropriate and in line with the current scenario of shortage of food and soaring food prices in many countries of the world including Pakistan. Director General, FAO has rightly identified this as a pertinent theme for the World Food Day this year.

Food and agriculture sector of Pakistan, which contributes more than 21 percent to the GDP, is currently facing several challenges associated with food safety and security. The phenomenon of climate change has started adversely affecting the performance and productivity of food crops and livestock products in the country since last 10-12 years. The negative effects of climate change on agriculture activities are more intense in Pakistan because our agriculture is based upon small scale farms having marginal lands which are most vulnerable to the changes in climate such as drought leading to increased aridity and ground-water depletion.

The Ministry of Food, Agriculture and Livestock is fully aware of the possible damages that can be caused by continuation of climatic changes to our land & water resources and to the biodiversity of our crops, livestock and fisheries resources. There is an urgent need to initiate strategic planning in order to develop mitigation strategies and well-coordinated action plans. We should improve our level of preparedness to combat climatic variability through development of efficient early warning systems and strengthening the resilience of small farmers' communities most vulnerable to natural calamities and disasters. In order to achieve these goals, we must focus on capacity building in the specialized field of risk assessment and disaster risk management.

Nature has blessed Pakistan with a wide range of agro-ecological zones and ecosystems. This range includes river terraces, irrigated plains, sandy deserts, arid and semi-arid deserts and northern snow-covered mountains. Because of these different agro-ecological zones, a large number of species and genotypes of plants, livestock and fisheries are found in Pakistan. These genetic resources can be used to adapt food and agricultural production to a changing world. Climate change experts have indicated that long-term altered climatic

Continued on Page 2

Ban Ki Moon, Secretary General, United Nations



This year's World Food Day comes at a time of crisis. Global financial turmoil is exacerbating concerns about rising food and fuel costs, which have already driven 75 million people deeper into the abyss of hunger and poverty. This colossal human tragedy is unfolding as we fight to keep the promise made in the first Millennium Development Goal: to reduce hunger and poverty by half by the year 2015. The situation would be alarming enough if it were confined to a matter of hunger, but a widespread lack of food triggers other, from social unrest to environmental degradation, while undermining the well-being of an entire generation on whom the world will depend in the future.

Even before prices started rising, eight hundred million people were going to sleep hungry every night. At the same time, the effects of climate change, including increased exposure to drought, more erratic rainfall and extreme weather events, threatened to confront millions more with malnutrition and water shortage. And now, with energy costs rising and the price of food having more than doubled in the past year alone, an additional 100 million people could be pushed into hunger and poverty.

These critical challenges to our shared humanity - addressing climate change, and responding to the global food and energy crisis - are interrelated and global in nature. And so they require a global response. These crises are not short-term, and will therefore require the sustained attention of governments, donors, international and regional organizations, civil society and the private sector for years to come.

Aware of the magnitude and complexities of this problem, the United Nations set up a High-Level Task Force on the Global Food Security Crisis which put together a Comprehensive Framework for action to chart the way forward for governments, the donor community, civil society and the private sector.

World Food Day an opportunity to build on this momentum by exploring its theme of climate change and bio-energy in the context of global food security.

These are life-and-death matters that we must confront with serious thought and resolute action. In this World Food Day, I urge Governments, organizations and citizens to forge meaningful

Continued on Page 2

Dr Jacques Diouf, Director General, FAO



"World Food Security: the Challenges of Climate Change and Bioenergy" From 3 to 5 June 2008, delegates from 161 countries met in Rome including 43 Heads of State and Government and over 100 ministers to participate in the High-Level Conference on World Food Security. Over 5000 People attended this event, which brought the food crisis to the forefront of the global development agenda. The Conference reaffirmed the need to produce more and therefore to invest more in agriculture. There is indeed a need to address the growing food demand due to increasing populations, economic progress in emerging countries and competition in the bio-energy sector when supply is affected by climate change and declining stocks.

This year's World Food Day theme which is "World Food Security: The Challenges of Climate Change and Bioenergy", provides an opportunity to promote the conclusions of the High-Level Conference in order to implement them as soon as possible. Climate change affects everyone but the poorest regions are already its first victims. Their situation is likely to worsen in the next decades. The worst hit will be hundreds of millions of people who are already vulnerable and food insecure - small-scale crop and animal producers, fishers and foresters. Climate change will affect availability of land, water and biodiversity. Changes in temperatures and precipitation, as well as more frequent extreme weather patterns, are expected to result in agriculture production shortfalls with negative impacts on access to food. Therefore, climate change is likely to increase migration towards richer countries while rising sea levels may force many communities in low-lying coastal areas and river deltas to move to higher ground. These risks need to be taken into account. And the analysis of food security needs to be placed in a completely new context. During the last three years, due to the soaring food and energy prices, the number of hungry people has increased by another 75 million at the end of 2007. This crisis is due to decreasing investments in agriculture in the poorest countries during the last 30 years. The share of agriculture in public development aid declined from 17% in 1980 to 3% in 2006. Financial institutions drastically reduced their funds for agriculture. We need to reverse this trend to come back to the previous level of investment. We also need to create food

Continued on Page 2

Messages

Continued from Page 1

Syed Yousaf Raza Gillani

agricultural sector in the short and medium terms. We intend to commence a comprehensive process for achieving a better understanding of the climate change and overcoming its impact through mitigation and adaptation measures, use of technology and integration of climate imperatives in our economic development efforts. We have already initiated several projects under carbon market mechanism like CMD and large to have more projects in the agriculture sector under this mechanism. At the end, I would like to reiterate that the Government of Pakistan is fully aware of the challenges of climate change and has already taken various steps to mitigate its harmful effects on country's economy. This includes allocating more resources

on priority basis to the agriculture sector, incentive packages for farmers, improvement in the research and extension services, water conservation, its efficient utilization and availability of inputs at appropriate time and cost. I wish all the success to organizers of the World Food Day 2008 particularly FAO, MIN-FAL and other agencies.

Nazar Muhammad Gondal

global, regional and national horizons. Compared to past diversity in agriculture, now only 20 plant species cover 90 percent of today's nutrition. Diversity therefore, key to nutritionally adequate diets. Adaptation to changing conditions due to climate change is better achieved through diversification and reducing the negative impacts of extreme events, like droughts, floods or diseases. In addition, the wild sources of food remain particularly important for the poor and landless, and play especially significant roles in times of famine and insecurity or human conflict, when food supply mechanisms are disrupted.

It is a matter of great satisfaction that Food and Agriculture Organization of the United Nations is playing a key role to address the issue of food security and challenges of climate change and bio-energy. The Government of Pakistan joins FAO to observe World Food Day on 16th October, 2008 and reiterates its full support to ensure food security and eradicate poverty and hunger at global level.

Mohammad Zia-ur-Rehman

conditions can become the main cause of loss of genetic biodiversity.

With an increase in global mean temperature, a significant number of species will be subjected to the risk of extinction. It is, therefore, necessary that we should accord high priority to the maintenance of our indigenous genetic resources. This would require, firstly, developing a national inventory of biodiversity including characterization and evaluation of genetic resources and, secondly, to develop adaptation mechanisms to climate change. I

hope that our agricultural scientists, geneticists and breeders of plants and livestock will accept this challenge in order to minimize the impact of climate change on food security in Pakistan. FAO as an international forum has played an important role in enhancing food security in developing countries. Its programmes have provided a foundation as well as framework for adequate response to the challenge of food shortages. I wish the FAO success in their endeavors that they are making for achieving food security in the developing countries.

Ban Ki Moon

partnerships to overcome these challenges so that we can meet all of our Millennium Development Goals and, ultimately, usher in a world free of hunger and poverty.

Dr Jacques Diouf

enabling frameworks for substantial increase of direct foreign investments for agriculture

in low-income, food-deficit countries. Equitable partnerships between countries which have land, water & labour supply & countries which have financial resources, management facilities and markets would constitute a solid base for sustainable agriculture. Agriculture has to be able to double global food production by 2050, when the current population of the globe now at 6 billion, will reach 9 billion.

This is the only way to mobilise the needed funds for a renewal of agriculture which are estimated at US\$ 30 billion per year by the special High-Level Task Force on the Global Food Crisis. On this World Food Day 2008, I invite you to promote the Declaration of the High-Level Conference on World Food Security, mobilising all stakeholders: national governments, international institutions, agricultural professional organizations, civil society and the private sector for its implementation. More than ever, the future of this planet depends on our capacity to sustain the development of agriculture in the poorest countries.