

PUT AGRICULTURE FIRST IN THE COP 15 NEGOTIATIONS

ASIA CONSULTATION ON AGRICULTURE, FOOD SECURITY AND CLIMATE CHANGE

Introduction

The climate change is one of the defining challenges of the 21st century with impact far beyond environment. The IPCC (2007) has projected that global mean surface temperature will rise by 2.0% to 4.5% by the end of the century due to increase in CO₂ concentration in the atmosphere. The increasing climate variability, unpredictable extremes of weather will have a dramatic impact on agriculture and food security as it may alter the balance between food demand and supply. Asia and South Africa are projected to be particularly vulnerable to these changes due to their large populations and great dependence on agriculture. To ensure food security greater attention is now demanded on adaptation on climate change including increased investment in adaptation and mitigation research, improved land use and natural resources management, and risk management et cetera.

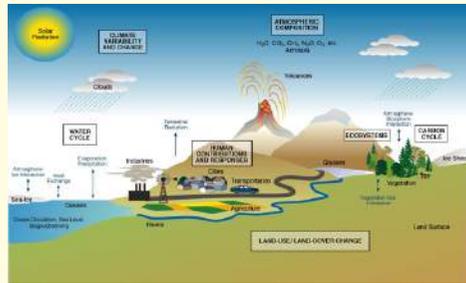
UNFCCC and climate talks with their focus on reducing emissions from industrial sources are required to realign the talks with increase appreciation of critical importance of agriculture. Agricultural adaptation and mitigation research, improved land use and natural resources management, improved risk management et cetera demand policy and institutional support at national and multilateral for a. Copenhagen talks can be defining moment to put agriculture first on the negotiation.

Climate change and agriculture

The agriculture is important in to ways. While it produces the food, it also provides livelihood to 36% of world's population. In the heavily populated countries in Asia and Africa this share increases to 40-50%, and in sub Saharan Africa 2/3rds of the workforce is engaged in agriculture. If agricultural production in low income developing countries of Asia and Africa is adversely affected, the livelihoods of large number of people would be put at risk and their vulnerability to food insecurity is increased.

The increase in GHG emissions have resulted in warming up of the climate system in the recent decades. Between 1996 and 2000, the temperature has risen by 0.74 DC. This has resulted in increased average temperature of global ocean level, sea level rise, and decline in glacier and snow cover. There is also a global trend of increased frequency of droughts as well as mean precipitation

Although increase in CO₂ is supposed to be beneficial for several crops such as rice, wheat and pulses associated increase in temperature and increased variability of rainfall would considerably reduce the food production. Increasing temperature is further likely to reduce the fertilizer efficiency leading to increased use of fertilizer resulting in high emission of GHGs. Small change in temperature can have significant effect on quality of foods, vegetables, tea coffee aromatic and medicinal plants with instant implications on their prices and trade. Crop pest interaction will change significantly. Global warming could also increase water, shelter and energy demands of livestock. Simple adaptive techniques like change in planting dates, and crop varieties can help reducing the impact of climate change to some extent but in view of the fact that food production needs to be increased substantially to be able to support increasing demand associated with population and income growth, they would not be sufficient without associated multilateral measures and support to developing countries.



The analyses done by Indian Meteorological Department (IMD) and Indian Institute of Tropical Methodology have given (rising) trends for temperature, heat waves, droughts and floods and sea level rise. Areas of increasing trends in monsoon rainfall are found along the west coast, north Andhra Pradesh and North West India and those of decreasing trend over Madhya Pradesh and adjoining areas, NE India and parts of Gujarat and Kerala.

It is projected that by end of the 21st century rainfall over India will increase by 15 to 40% and mean annual temperature will rise by 3-6 DC (NATCOM 2004). The north region of India will be most affected. Such global climatic changes will affect agriculture through direct and indirect effects on crops, soil, livestock and pests. Increase in CO₂ will have fertilization effect on crops however; the increasing temperature may reduce the yield substantially. All this will have dramatic impact on agricultural production and food security of the region.

Impact on food security

Climate change affects all the four dimensions of food security; availability of food, access to food, stability of supply and access and food utilization. Agricultural output in developing countries

is expected to decline by 10-20% by 2080. Climate change and resulting increase in CO₂ and temperature can influence food availability not only directly through growth and yield of crops but also indirectly by introducing changes in hydrological balance. In recent times northern India rice yield has reduced during the last three decades. Similar trends are noticed in Philippines. Other South Asian and African countries too would need concrete measures to sustain their domestic production and adaptive capacity to climate change. Interaction of climate related changes with agriculture, forestry, livestock, aquatic systems is bound to affect food security in ways more than one can imagine.

Climate change has also encouraged developed countries to switch to bio energy. The rising bio energy demand has further added to the challenges that sustainable agriculture faces. According to the estimates the production of bio-fuels has contributed to a rise of cereal prices by 30% between 2000 and 2007. The production of bio-energy reduces availability of land for agriculture, reduced farming community's food security due to conversion to cash crops, and reduces production of staple food crops like maize reducing availability of grains for food production for human being and livestock with cyclic impacts. It has also led to clearing of tropical forests and wetlands, and added to GHG emissions due to burning of rich biodiversity land for cultivation. It is estimated that a child's food demand for a year is equal to one fill (of bio-fuel) tank. UN Special rapporteur on Right to food, Mr. Jean Ziegler has termed bio-fuel production is a "crime against humanity."

Agriculture in UNFCCC framework and Copenhagen talks

The focus of UNFCCC framework and climate talks has been on reducing GHG emission from industrial sources. There have been decent appreciation of the risks posed by climate change on agriculture and food security especially in the developing countries however, what has been missing from these talks is the critical importance of agriculture to impact food security of huge populations far more quickly and considerably than all other hazards taken together. Improved adaptive management, research and financial support in developing countries is not only demanded by higher morality but dictated by best of scientific knowledge to the access of world.

The GHG emissions from agriculture (including emissions from use change, deforestation and degradation) contributes about 35% of world's annual GHG emissions. The developing world accounts for approximately half of agricultural emissions and about 80% of land use and forestry emissions. REDD, the mechanism created by UNFCCC process, allows continuing consumptive and unsustainable lifestyles of rich countries by buying cheap carbon credits earned through plantation in developing countries. Plantations have little capacity to act as carbon sinks as compared to

natural forests. Thus REDD would not be able to address the deforestation and degradation completely as long talks on agriculture instill confidence in people and convince them to eschew from converting forests into unsustainable agricultural practices. Other market based mechanism like CDM has proved to be greenwash and has become an instrument of earning green dollars by multinational corporations in developing countries. In fact the economics of carbon trading is all about continue polluting in exchange of cheap investment in developing countries.

Agriculture has huge potential to mitigate GHG emissions through changes in agricultural technology and management. Even without climate change greater investments in agricultural science and technology are needed to meet the rising populations. Climate change places challenging demands in agricultural productions and underscores the need to pursue crop and livestock research and biotechnology. Investment in rural infrastructure and institutional support agricultural extension, credits and facilities for internal trade can increase the resilience of farmers and considerably reduce their vulnerability for uncertain climate changes.

The Copenhagen talks present an extraordinary opportunity to integrate agriculture and food security within the framework negotiations. Unless agriculture is handled with the alacrity required, the best of efforts could still fall short of ensuring well being of world. It is also in sync with prioritizing "rights over development" and looking at climate change discourse from the "rights perspective"

PAIRVI

Public Advocacy Initiatives for Rights & Values in India (PAIRVI) is a non-profit Advocacy Support Organization, which seeks to facilitate and strengthen social advocacy in North and Central India. PAIRVI goal is to promote peoples agenda by creating a supportive climate for advocacy efforts across the region. It is committed to enhance capacity of grassroots organization in human rights practice and advocacy with the objective of strengthening human rights infrastructure.



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CECOEDECON

Centre for Community Economics and Development Consultants Society (CECOEDECON) is a non-profit and non-government organization, engaged in a variety of development, research and advocacy activities. Its mission is to facilitate the process of empowerment of partner communities-dalits, indigenous people, the landless, small and marginal farmers, deprived women and children through both direct or indirect intervention, so that they are able to take action independently and effectively to secure their long term well being.



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Food Trade and Nutrition (FTN) Coalition –ASIA

Food Trade and Nutrition Coalition (FTN Coalition) is a network of organisations in Africa, Asia, Europe and Latin America: ABRANDH, AIPE, AIS, Beacon, CECOEDECON, CEC, Cioec, CIN, CoU-Teddo, ICCO (associated with Aprodev), Inesc, Kerkinactie, PAIRVI, CEC, SANSAD and Wemos. FTN Coalition members are drawn from civil society organisations with a special interest in food, nutrition, trade and health issues: consumer organisations, farmers' organisations, organizations working on rural development, groups of the people's health movement, groups working on the promotion of healthy nutrition, etc.



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