

Climate Change negotiations: perspectives of smallholder farmers

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Agriculture and Climate change

- 1.7 billion farmers depend on agriculture, the proportion of which is substantially large in developing and least developed countries
- Agriculture is highly sensitive to climate variability and weather extreme
- Forces that shape our climate are also critical for farm productivity
- South Asia and Africa are projected to be particularly vulnerable to these changes due to their large populations and great dependence on agriculture for livelihoods

What roles the negotiations can play?

- Adaptation in Agriculture?
- Loss and Damage?
- Work Program on Agriculture?

Focusing on smallholders farmers

- 60% of global agriculture happens on small holder managed farms and 65%
- Smallholders produce 80% of developing world's food consumption
- Climate change is creating serious harm to smallholder farmers and to food security in developing countries
- Changing climate results in decline in yields (Drought of 2009- 2% loss of productivity)increasing water scarcity, and often devastating losses from the wide spread effects of climate related disasters such as flood and droughts
- CC has profound repercussions for food security in developing countries and places well-being of billions of people in developing countries at risk

Climate change is already a reality

Marked changes in weather patterns on which agriculture depends-

Dry lands : India since last 30 years

- Change of seasons: monsoon 120 days to <60 days
- Intense rainfall, more runoff
- Rainfall very unpredictable
- long gaps in rainy period
- Local river dried up
- Shortening winter, rise in minimum temperature

Impacts on livelihood and food security

- Rainfall unpredictable –sown seeds lost 2 to 3 times, loss of traditional varieties, seeds not available for re-sowing
- heavy rainfall around harvest time –destruction of standing crop
- Untimely rainfall, high temperatures – repeated crop loss
- Area under cultivation is decreasing
- Scarcity of water and fodder for livestock
- Both floods & droughts experienced in same region
- Increased risk of fire, pests & pathogens outbreak
- Increased and forced migration

Agriculture' is not uniform

Industrial agriculture	Many forms of low input agriculture
Monocultures	Small landholdings
Input intensive (chemicals & machinery)	Family farms
Market integration	Integrated, mixed cropping
	Diversified
	Low access to productive resources
	Poor land
	Marginalized

How to face climate change ?

- Survival of agriculture is at stake
- Reduction in GHG emissions and decreased variability of natural resources is essential
- Living and cultivating under the highly **unpredictable** conditions is the foremost challenge
- Adaptation to current climate crisis is **URGENT**

What solutions are being offered?

- **Climate Smart Agriculture**

The climate smart agriculture being pushed in the world and, is advocated as triple win, increased food production, cash for poor farmers and climate resilience in farming. But there are no models to prove it.

Do these technologies/ solutions benefit smallholders?

- Protected by patents,
- Expensive,
- Increasing dependence,
- Destroying biodiversity, natural cycles and resilience,
- Delinking from local resources and skills,
- Narrowing farmers' choices
- These solutions are benefiting only the few agro multi-nationals

Work Program on Agriculture

- Proposed work program on agriculture is pushed by countries having huge on farm and off farm emissions
- They see mitigation in agriculture (primarily through soil carbon sequestration) as an opportunity to reduce their own emissions as well as earn carbon credits in the developing countries
- Will pave the way for introducing soil-carbon in the carbon markets
- Will have disastrous impact on food security and livelihood of small holder farmers

Work Program on Agriculture

- Focus of agriculture will be diverted to offset technology instead of food and livelihood security
- It may negatively affect the Rights of Small scale farmers particularly Land Tenure Rights and Right to Water
- Emphasis on mitigation can shift the burden of GHG reduction to developing countries

India's National Policies

- National Mission on Sustainable Agriculture is also directed by wrong international guidance.
- Its goals are skewed towards big farmers and are more technology focused
- Recommended technologies are likely to intensify the use of chemicals and increase GHGs emissions
- Insufficient consideration of practices to promote sustainable agriculture
- Lack of emphasis on farmer-to-farmer learning
- No priority on traditional and indigenous knowledge and needs of farm communities
- Even, National Water Mission is also proposing to optimize the water use through market regulations, including pricing

Present Conflict

- Many developing countries and LDCs arguing that the foremost concern of agriculture is adaptation as it is linked to food security
- On the other hand, developed and some developing countries calling for emissions from agriculture sector to be addressed as a mitigation issue

What is important ?

- The needs, interests and rights of small farm holders and food producers must be placed at the center of agriculture and climate change policies and practices
- Adaptation is first and foremost priority
- Traditional and indigenous knowledge need to be considered in framing adaptation strategies and approaches
- Promotion of successful agroecological approaches and accessible risk management strategies

What needs to be done?

- The primary objective of work program on agriculture should be to ensure the food security, adaptation and the rights of smallholder farmers and food producers
- SBSTA to engage with farmers groups to advise the COP 18 on what should be the issues for consideration in negotiations on agriculture and climate change
- Define the practical and effective ways to build the resilience and performance of farming systems in the face of climate change
- Recognition of already significant impacts of climate change on agriculture is required and adaptation funding should be fast tracked and made available to small holder farmers

Thank you!