

THE AGRARIAN CRISIS IN INDIA AND CLIMATE CHANGE¹

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I. THE AGRICULTURE AND CLIMATE CHANGE NEXUS

By several accounts, India is experiencing a deep and protracted agrarian crisis. With 60% of the population (700 million people), directly or indirectly dependent on agriculture (and allied occupations), the sector has seen low growth rates.² Broadly, some of the issues plaguing Indian agriculture are: the inability to absorb additions to the rural labour force, struggles for land and securing living wages for landless labour, declining availability of credit, rising input costs, falling groundwater levels in many areas, the breakdown of agriculture extension services, farmer suicides, rising distress migration to urban areas for employment, low per capita availability of food and environmental degradation.

¹ This paper, compiled by Benny Kuruvilla, primarily draws from discussions at a workshop – ‘Agrarian crisis, climate change and the state response’ held at the Council for Social Development (CSD) in New Delhi on 14th December 2012. The meeting was organised by the South Asia office of the Rosa Luxemburg Stiftung to foster its understanding of the Agrarian crisis and climate change. Participants included representatives of peasant organisations and agriculture and climate experts.

² The Central Statistical Organisation (CSO) estimates that agriculture and allied occupations will grow at 1.8% during 2012-13.

The unravelling of climate change in the 15 agro-climatic zones of India adds a further level of complexity and unpredictability to an already acute crisis situation. The key elements of climate impacts are a predicted rise in mean surface temperature between 3.5 and 4.3°C by 2100, greater frequency of heat waves and hot days, increasingly erratic rainfall with higher instances of heavy rainfall days, lowering of water aquifers and an increase in sea surface temperatures by about 3°C.³

It is now certain that, irrespective of mitigation action, a certain level of temperature rise will happen in the foreseeable future. This implies that, along with strategies and programmes to address the longstanding agrarian crisis, agricultural groups also need to urgently think of adaptation strategies.

Further, already existing crises and problems will be intensified. Given that 60% of all agriculture is rain-fed, erratic rainfall will seriously impact food productivity. The increase in sea surface temperature will negatively impact aquatic life to the detriment of fishing communities. Livestock too is vulnerable to thermal stress, particularly hybrid species that are less resilient to such changes in temperature and this will affect, for instance, milk production negatively.

A bottom-up vulnerability approach needs to complement the top-down hazard approach that is currently being employed by the State. This entails a more inclusive approach using community level knowledge that is as relevant at the local scale as possible whereas the 'top-down' approach relies on model-based global climate projections. Vulnerability to climate is, of course, not a new phenomenon but with further change, populations will become more vulnerable. This new challenge needs to be viewed within a broader political economy perspective on agriculture. Two elements – introducing crop diversity and supporting rain-fed agriculture can build resilience to climate variability. Further, in a context where demand for food grains is going to increase by 30-50% in the next few decades, new and more organised adaptation strategies need to be worked out.

Peasant organisations such as the South Indian Coordination Committee of Farmers' Movements (SICCFM) have often highlighted the lack of producer autonomy. Farmers are forced to shift to cash crops such as maize, cotton and soya bean instead of more sustainable food crops such as ragi or bajra. The autonomy of small farmers has been lost due to government policies that privilege agribusiness, contract farming, export orientation and corporate control over seeds. In this policy context, a food system based on small scale farms that function on principles of local production, local storage and local distribution is shunned, adversely impacting crop diversity. Peasant formations such as SICCFM are focussing on operationalising the principles of food sovereignty and agro-ecology as a way out. Further, increasing costs of inputs along with shortage of labour in many areas has meant that agriculture is becoming more expensive. Added to this, is the role of middlemen in the sale and distribution of produce and the lack of State support to farmers' cooperatives which forces them to compete with big corporations. Such developments have also exacerbated the precarious condition of farmers, prompting more suicides. Figures from the National Crime Records Bureau (NCRB) show that at least 270,940 Indian farmers have taken their lives since 1995. These statistics are significant underestimations as female farmer suicides are not even taken into account.⁴ The issue of farmer suicides has worsened since import restrictions were removed following

³ Information cited is from India's second National Communication (NATCOM) to the United Nations Framework Convention on Climate Change submitted in April 2012.

⁴ These figures considerably underestimate the actual numbers as women and agricultural labourers are often excluded from state statistics on farmer's suicides because they do not have title to land– which is a common prerequisite for being recognised as a farmer in official statistics and programs.



commitments under the World Trade Organisation's (WTO) Agreement on Agriculture (AoA). However, there have been people's resistance movements against anti-peasant policies by the State. Some examples are the Indian People's Campaign Against WTO (IPCAWTO) – which includes formations such as the All India Agriculture Workers Union and the All India Kisan Sabha, the SICCFM (made up of farmers associations like the Karnataka State Farmers Federation, Tamil Nadu Farmers Association and the Kerala Coconut Farmers Association and the Via Campesina South Asia).

With respect to climate impacts, there is a serious lack of information dissemination on climate impacts and weather forecasts from the concerned agencies. Studies show that in regions such as Bundelkhand and Gujarat, the impacts of temperature rise include: fallow land due to reduced dew, a decrease in crop yield, an increase in pests and, because of thermal stress in livestock – a reduction in milk production as well. New kinds of illnesses have been noted in humans as well as animals. Two critical sections of society were found to be particularly vulnerable in this context – poor women, agricultural workers and sharecroppers.

The state has failed to create contingency plans and has, instead, only responded to crisis situations. Existing policy does not, in fact, factor contingency plans. Water tables are going down and productivity has taken a hit. Agriculture extension services have collapsed and private players such as Dupont and Cargill have stepped in. In order to build resilience against impending climate impacts, mass organisations such as the All India Kisan Sabha (AIKS) have experimented successfully with sustainable methods such as the System of Rice Intensification (SRI) in Tripura and Kerala leading to substantial production increases.⁵ Peasant groups are also actively questioning new methods to increase production by the state as it involves an increase in chemical use (and added costs).

There is also a general lack of information dissemination by the state and climate experts to agriculture groups in a timely manner. Climate change could also be yet another excuse for the state to push small and marginal farmers out of agriculture and pave the way for agribusiness. This is achieved through schemes to promote agro-fuels and the push for genetically modified crops that are supposedly climate resilient.

Some key issues/questions for groups working on agriculture and climate are:

- Should the approach be one of helping farmers adapt to the inevitable changes or one which addresses reducing or countering the current process of climate change and related damage to agriculture?
- The possibility of climate change as an opportunity to switch back to traditional crops such as bajra and ragi can be explored, although it should be viewed less as an opportunity and more as a means of adapting.
- The simultaneity of small farmers as the most vulnerable and also the most resilient. The agricultural practices that made them vulnerable on the one hand are also the basis for developing practices to deal with climate variability.
- It is important for groups to deliberate on the bottom-up approach to deal with climate change and examine how viable this has been so far. A possible way forward could be to initiate collaborative research together with farmers and scientists.
- Recognise broader economic and political processes around agriculture and trade. One example is the possibility of more Indian companies investing in land and agriculture (partly facilitated by the Indian state) in Africa for food security. These emerging trends also need to be part of the analysis of the agrarian question in India.

⁵ The key principles of SRI are using organic compost, retaining soil moisture, mechanical weeding (rather than spraying herbicides). Reports indicate increased yields with massive reductions in seed requirements, less need for irrigated water, greater resistance to pests and diseases and greater resistance to drought and storm damage.



II. THE STATE RESPONSE ON CLIMATE CHANGE

The current state response in the form of the National Action Plan on Climate Change [NAPCC] and some 16 State Action Plans on Climate Change [SAP] lacks coherence and is flawed in terms of both content and process. Firstly, the extent of temperature rise has not been acknowledged although some revised SAPs have begun including this data. Secondly, the proposals for technological interventions such as the usage of genetically modified seeds are methods that will not, in fact, build climate resilience but will continue to create further vulnerability.

On the matter of process, the lack of consultations with civil society or even academic and scientist groups is glaring. A further cause for alarm is that state governments are abrogating their responsibility by handing over the job of preparing SAPs to private consultancies often funded through agencies such as the United Kingdom's Department for International Cooperation (DFID) and United Nations Development Programme (UNDP). While SAPs are supposed to mirror the NAPCC, there are several contradictions in some states. Most significant has been the introduction of the flawed and ineffective carbon credits market into agriculture in some SAPs, even though the Government of India opposed this at the United Nations Framework Convention on Climate Change (UNFCCC). This means that advocacy work around climate and agriculture will need to focus not only at the national, but also at the state level where there seems to be a lot of discrepancy.

An examination of the SAP process in states such as Madhya Pradesh (MP), Odisha, and Karnataka shows vast differences in approach. While MP conducted as many as thirteen regional workshops involving different sections of society, other states had only three or four without adequate participation of all stakeholders. The involvement of donor agencies was high in some SAPs. In states such as Himachal Pradesh, where farmers have been consistently raising the issue of crop loss due to changing weather conditions, this factor does not find mention in the SAP.

The National Mission on Sustainable Agriculture (NMSA) which is part of the NAPCC process complements the 12th Five year plan in pushing for biotechnology in the name of sustainable agriculture. This is a move which needs to be questioned. There are also worrisome trends in terms of forging partnerships with agribusiness firms such as Cargill and Monsanto. The NMSA moots public private partnerships (PPPs) between public research institutes and private companies, but it has ignored progressive initiatives by farmers groups such as agro-ecology, seed conservation and SRI. The state needs to be made aware that partnerships can also be forged between public authorities and farmer's cooperatives, scientists associations and farmers groups, rather than just with the private sector.



III. IDEAS FOR FURTHER ANALYSIS AND ACTION

a) **Focusing on the agrarian crisis with climate resilience as part of the progressive agenda**

There are several possible avenues for building synergies between agriculture and climate issues. Many peasant groups feel that even though climate change is not a new issue, and that it is one which is a significant factor contributing to further deepening the agricultural crisis, it is unlikely to soon become a key political demand in a way that the agrarian crisis can be. The reality, however, is that climate change and the agrarian crisis are inseparably interlinked. A pragmatic way forward for peasant advocacy groups is to focus on the agrarian crisis. For example, they should push for policies to make agriculture viable by demanding land reform, revival of agriculture extension services, adequate pricing, regulated input costs, decent wages for farm labour, regulation of international trade etc. As discussed earlier, most of these moves address climate related damage directly or indirectly and support local farmers. Therefore, within this paradigm, climate proofing or resilience can be an essential part of the progressive agenda. This approach entails thinking of the agrarian question (and the class questions within agriculture) as the primary issue and think of the ways in which climate change may contribute to its analysis. However, one should exercise a note of caution in viewing climate change as somewhat secondary in priority, particularly in a context where average temperatures are likely to rise by more than 2°C above 1850 levels in the coming decades. Instead, there is a need to strengthen people's perspective on climate change and look at the ways in which different groups are dealing with it. Further, there is a need to identify specific communities that are affected by climate change and understand how they are responding to it.

b) **The mechanisation question**

A second key issue that is more often a source of tension between the climate justice groups and farmers/peasants organisations is that of mechanisation. Mechanisation is often associated with higher energy consumption and therefore considered not sustainable by some groups lobbying against climate change. However, farmers' groups face acute shortage of labour and the need to increase productivity. They consider a certain level of mechanisation as inevitable. The predominant approach of civil society groups working on climate issues to science and technology is that it is inherently bad. However, there is a need to begin thinking of ways through which farmers' and agricultural workers' organisations could collaborate with climate scientists, state officials and state government bureaucracies on using appropriate technologies (that create jobs, are collectively owned and environment friendly) so that the anti-mechanisation drive isn't just a "throw the baby out of the bath water" exercise.

c) **Advocacy and participation at the state level**

The SAPs, although meant as mirror images of the NAPCC, have gone in different directions and their preparation has generally been a haphazard process.⁶ Therefore engaging more stakeholders – ordinary people, civil society groups and scientists in the process of reviewing SAPs has the potential, if not of fundamentally changing the direction of broader state policy or bringing any immediate changes, at least as an opportunity for people to alter the current power equation.

⁶ For instance see this press release from the National Fish Workers Forum. <http://keralafishworkers.in/nfftoobserver.html>



d) Preparing relevant material to create awareness among different stakeholders

Another important point of intervention for climate groups is to prepare appropriate awareness raising material on agriculture in a way that is relevant for farmers groups. However, such literature should not be too narrow or compartmentalised. For example, it is not possible to talk of adaptation and mitigation without questioning the current development model. The material will be relevant to farmers' groups, therefore, only if it is holistic in its approach. Further, the material needs to be conceptualised not as documents that will provide all the answers but that can successfully generate a relevant debate by asking the right questions.

e) Building collaboration and value in agricultural communities as well as civil society

There is also an ever-growing need for different agriculture-based communities' organisations to work together, for example, the AIKS and the SICCFM that do not work together and yet have considerable scope to do so. Civil society organisations can play a helpful role in this by facilitating seminars, workshops, conferences, exchange programmes and joint research. A critical point is that some 40% of those employed in agriculture would like to leave. Under such conditions, it is imperative to think of processes that could articulate an agenda for either making farming viable or for creating alternative job opportunities. An avenue for the former can possibly be found in building cooperatives and linking producer, marketing and consumer societies. It is now being increasingly reflected in positions of farmers' organisations that cooperatives for marketing, for common utilities, for common threshing places are an important part of the way forward.

In conclusion, any progressive initiative on agriculture and climate change needs to be pursued systematically with the key themes of collaboration, research, action and the urgent need to scale up alternatives emerging from the ground to the policy level. Only a collective process that brings together people's movements, scientists, academicians, policy makers, political actors and civil society groups, can respond to the twin challenges of the agrarian and climate crises.

THE WORKSHOP WAS ATTENDED BY:

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CLIMATE CHANGE AND INDIA

ANALYSIS OF POLITICAL ECONOMY AND IMPACT

**ROSA
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Dutta, Ghosh, Gopalakrishnan, Bijoy and Yasmin. *Climate Change and India. Analysis of Political Economy and Impact.* New Delhi; Danish Books, 2013.

The book attempts to bring together the overlapping processes of globalization, global warming and the politics of development. It explores and analyses several processes related to climate change, their relationship with it and its impact on people; not only dominant politico economic processes in India and abroad, but also economic policies. It also discusses the multifaceted nature of the impact that climate change has as a natural phenomenon, a political symbol and a focus of policy making.