

**International Conference on
'Strengthening Climate Justice Initiatives at the Local Level for
Sustainable Livelihood with a Focus on Farmers'**

Institute of Law, NIRMA University, Ahmedabad

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We are gathered here today to reflect and discuss issues that will fundamentally shape India in the 21st century. In some senses, it is a confluence of where we come from as a nation and the direction in which we are headed.

Agriculture is an integral part of who we are as a society and a nation. Mahatma Gandhi profoundly captured the relationship between agriculture and India's soul when he said that:

"To forget how to dig the earth and tend the soil is to forget ourselves."

However, the current state of Indian agriculture seems to indicate that we are forgetting our roots and our journey of over six decades of independence. Apart from all the economic and policy pressures that operate on Indian agriculture, the impact of climate change on Indian farmers requires to be tackled with greater urgency than ever before. The crisis in Indian agriculture and the incremental realisation of the disastrous impact of climate change are going to be amongst India's greatest challenges for the 21st century. Unfortunately, we do not seem to be addressing either issue with sufficient rigour and I do hope that this event will contribute to triggering efforts to address these issues in sufficient depth. These issues on their own and in relation to each other, present extremely critical questions for us a society, nation and for our role in global affairs.

While there exist those who question the phenomenon of climate change, there is unanimity amongst the world's leading scientific bodies that our planet's climate is undergoing unprecedented changes. While the term 'global warming' is interchangeably used with 'climate change' I am going to use the phrase 'climate change' during the course of my address today because I believe it captures more accurately the changing weather patterns globally. The joint statement put out in 2005 by the national science academies of 11 countries including India, Brazil and the United States has categorically stated that "climate change is real." The statement issued by these 11 national science academies also said that "the evidence comes from direct measurements of rising surface air temperatures, subsurface ocean temperatures and from phenomena such as increases in average global sea levels, retreating glaciers, and changes to many physical and biological systems". As rational human beings, we should be convinced by the scientific evidence they have relied rather lend our ears to the empty rhetoric of those who deny climate change. And what is also beyond doubt now is that it is human activities that are primarily driving this climate change.

However, while there has been large-scale agreement on that climate change is happening and it is beginning to have disastrous impacts, there has been very little agreement about what to do about it in terms of binding international legal obligations. The governing principle of international negotiations in this regard -- - 'Common But Differentiated Responsibility' --- was agreed upon at the 1992 UN Conference on Environment and Development at Rio de Janeiro, informally known as the Earth Summit. The principle while recognising the responsibility of all States to address the issue of climate change also acknowledged the different levels of contribution to the problem and the different ability of States to address it. Out of the Earth Summit arose the UN Framework Convention on Climate Change (UNFCCC) and also the Kyoto Protocol that was concluded in 1997. While the Kyoto Protocol came into effect only in 2005, it mandated country-by-country reduction in emission of greenhouse gases on industrialised nations, and

thereby not imposing any obligations on countries like India and China. While the targets were to be met by 2005, the refusal by the United States to be bound by it severely affected its efficacy. By 2009 it was seen that due to emissions largely from countries like the United States and China, it was seen that emission levels had risen by 40% since 1990. With the Kyoto Protocol heading towards disintegration, the 2011 Climate Talks in Durban achieved a significant breakthrough to keep the Kyoto Protocol alive until 2020 and also an agreement was reached to begin negotiations towards a new protocol with legal force that would take effect after 2020 for all countries. But as expected, there is very little agreement in the international community as to the content of the binding emissions standards must be laid down. In terms of financial assistance to developing countries in helping them reduce their emissions, though developed countries have committed to providing \$100 billion by 2020, there has been increasing controversy over whether this must be publicly financed or whether it can be met using private finance.

This global framework that I have outlined of climate change negotiations has very serious national and local consequences, particularly on agriculture. The role of agriculture in climate change discussions is a rather complex one. On the one hand it is seen as an activity capable of tremendous CO₂ absorption and therefore good for the environment but at the same time there are concerns about agriculture and related activities contributing to greenhouse gas (GHG) emissions. Data released by the Food and Agriculture Organisation of the UN in April 2014 showed that GHG emissions from agriculture and other related activities had almost doubled in the last fifty years and it showed a 14% increase between 2001 and 2011. And this has to be seen in the context of figures from the Intergovernmental Panel on Climate Change (IPCC) that agriculture contributes approximately 14% of the total emissions with energy production and supply, industry, construction activities and transport contributing nearly 70% of the emissions. In this context we certainly must begin to have

conversations here at home about the manner in which we can look to reduce the GHG emission levels from agriculture. However, integral and central to that discussion must be the disastrous impact that climate change is having on an already vulnerable agriculture sector in India. The agricultural sector has not received enough attention and support to make it sustainable and it would be extremely burdensome on the vast majority of India's farmers if we focus only on reducing emissions from agriculture without giving equal importance to making it sustainable.

I am aware that one of the main debates on agriculture in the context of climate change is whether agriculture is a 'net emitter'. While it is for the scientists to analyse the evidence on whether the emissions from agriculture related activities is offset by the potential of agriculture to absorb CO₂, I would only say that this exercise must be context-specific. We might see a certain trend globally or even in Asia, but we need to be extremely careful before we declare agriculture to be a 'net emitter' in the Indian context. We need to invest in significant research on this issue so that we can make policies on accurate data rather than assumptions and the research should give us an indication that is as local as possible. This is of critical importance because once agriculture is seen as a 'net emitter', there will be increasing pressure on farmers to adopt climate-smart practices and technologies that would impose a significant burden on them. While evidence-based law and policy making still has a long way to go in India, it assumes much greater importance in this context because agriculture in India is already under great strain.

Before we engage with the issue of the adverse consequences of climate change on farmers in India, it is important that we appreciate the extent and intensity of the crisis in India's agricultural sector. According to the 2011 Census, India has 95.8 million farmers, under the Census category of 'main cultivators' which indicates the people actually undertaking the activity of farming. This number

has fallen from 103 million in 2001 and 110 million in 1991 -- which makes it evident that India today has 15 million less farmers than it did in 1991. It is increasingly becoming apparent that far lesser people are in agriculture than is usually believed. Even adding agricultural labourers to cultivators, the Census figure is 263 million or about 22% of our population, which is far less than the popular belief that 53% of our population is involved in agriculture. However, what is true that more than 50% is "dependant" on agriculture with more than two-thirds of our rural population dependant on agriculture for their livelihoods. Amongst the cultivators in India, nearly 85% of them are small and marginal farmers and thereby extremely susceptible to market volatility and climate variability. Indian agriculture generally has seen a drastic increase in input prices, dropping public investment and increasing exposure to the vagaries of price fluctuation in the global market.

Amidst this general context of crisis, the tragic phenomenon of farmer suicides has gripped Indian agriculture in significant parts of the country. It demonstrates large-scale systemic failure on multiple fronts. For a wide range of inexplicable reasons, the vast number of suicides by our farmers has not shocked us into action to resolve this inhumane situation that our farmers face. According to the National Crime Records Bureau, over 1,80,000 farmers have committed suicide since 2001 and the figure is over 2,70,000 since 1995. India's richest State, Maharashtra, had seen over 50,000 farmer suicides between 1995-2012 along with Karnataka, Andhra Pradesh, Madhya Pradesh and Chattisgarh it recorded well over two-thirds of the total farmer suicides. This is darkest reminder to us as a nation about the manner in which we have treated and neglected our farmers. It is seen that this full-blown crisis of farmer suicides is at its most intense where farmers have very small land-holdings, cultivate cash crops that are extremely susceptible to fluctuations of global market prices and have negligible access to institutionalised agricultural credit.

Farmer suicides are an issue that must deeply trouble us. We can quibble over the exact numbers or whether farmer suicides indicate flawed policy directions, but what is not contestable is that we have failed to protect a section of our population that has contributed and continues to contribute to the growth and survival of this country. When independence came in 1947, we were a nation plagued by hunger and severe shortage of food. It is our farmers and undoubtedly our scientists that took us out of that grim reality. And today we are faced with a situation where we subject the families of farmers who commit suicide to inhumane treatment. For example, families of farmers who commit suicide are required to submit a post-mortem report certifying that the death was due to suicide. But the plague of corruption in our system is entrenched so deeply that often such families are required to bribe individuals to get this report they are entitled to. It is heart-breaking to read of accounts where families are unable to claim compensation they are entitled to because they can't pay the bribe to get the requisite post-mortem certificate. If there ever was a vicious cycle, this must surely qualify for it.

The paradox in the trends in agricultural credit flow is quite revealing of our ineffective policies. It is quite unbelievable that as the agrarian distress intensifies, there has been tremendous growth in agricultural credit flow. The share of commercial bank and Regional Rural Banks in the total agricultural credit increased from 30% in 2000 to 52% in 2007. However, an analysis of debt patterns amongst cultivator-families showed that they were borrowing less from formal sources and more from moneylenders. How do we explain this strange paradox? The in-depth work by Professor Ramakumar and Pallavi Chavan at the Tata Institute of Social Sciences reveals the answer to this paradox. This is because most of the credit went to indirect agricultural lending to dealers in inputs for agriculture, irrigation equipment dealers and Non-Banking Financial Companies that then lent to agriculture. Further, the lending mostly happened from the urban and metropolitan branches of these banks. Financial policy was

designed in such a way to change the meaning of agricultural credit under the priority sector and it suddenly became easy to finance commercial, export-oriented and capital intensive agriculture. Agricultural credit then was available to companies and large corporation but not really to the small and marginal farmers toiling away in India's villages.

Agricultural credit is just one aspect of the crisis that informs Indian agriculture. Issues like depleting ground water resources, increased use of fertilisers affecting the fertility of soil while increasing costs, no real mechanism for effective and affordable crop insurance etc has driven Indian agriculture to the very edge.

It is in this context of intense crisis that we must evaluate the impact of climate change on India's farmers. Undoubtedly, the effects of climate change will only increase the vulnerability of India's farmers. In a country where irrigation is largely dependent on rainfall, changing patterns and quantum of rain would spell disaster for our farmers. Severe famine or droughts are circumstances that India's small and marginal farmers cannot cope with. It clear that climate change has significant socio-economic impact and the important point to remember is that these consequences have far greater impact on the livelihood on the lives of millions of small and marginal farmers. In India, most small and marginal farmers subsist on rain-fed agriculture, and reports from the Intergovernmental Panel of Climate Change (IPCC) warn of an increase in extreme rainfall over central India. Likely variations in rainfall patterns have very drastic consequences on production and livelihood of farmers. This will require better water management techniques and investment in storage infrastructure. Small and marginal farmers live in a very uncertain environment. Though they might be able to adapt to short-term climate changes, they are not geared to meet the challenges of long-term changes that threaten their ability to earn, plan and invest. Those who live with uncertainty have less money for food, farm

investments and a reduced capacity and willingness to try new practices and technologies. Thus, it is necessary to encourage a shift to resource saving, smart agriculture practices starting with strategies such as changes in sowing dates of crops, use of different crop varieties and better risk management strategies, through effective warning weather information systems and innovative crop insurance policies, all of which can reduce the vulnerability of rural communities. As a country and society we need to develop a robust social security net for our farmers.

There have been attempts at providing comprehensive crop insurance through the years. Starting with the Comprehensive Crop Insurance Scheme in 1985 and then experimenting with the National Agricultural Insurance Scheme in 2000, India has failed to develop a viable crop insurance scheme. The fact that it has not worked so far cannot mean that we do not try further. A viable and sustainable form of insurance for our farmers will be crucial to ensure that their livelihood is not destroyed.

The consequence of climate change is only going to intensify this vulnerability. It must be an extremely important priority for us to address the consequences of climate change in India, and particularly farmers. The agricultural sector and India's farmers are already in doldrums that it would be a travesty not to address their concerns on a priority basis. We have to acknowledge that the adverse consequences are going to most acutely affect the farming community first. There is an immediate and strong link between the impoverishment of India's small and marginal farmers on the one hand and conditions of farming that will be altered by climate change on the other.

We need to invest heavily into research to develop irrigation solutions that are affordable, accessible and environmentally sustainable. This will be crucial in offsetting the consequences of increasingly unpredictable rain patterns. It would be

equally important for us to consider our crop patterns and the crops we want to incentivise. We cannot afford to expose our small and marginal farmers to the vagaries of the global economic market while they grapple with the uncertainties that come with climate change.

As amongst the most vulnerable groups to be impacted by climate change in India, the interests of our farmers needs to be moved to the centre of climate change negotiations. Particularly in terms of scientific knowledge, transfer of technology and financial arrangements, the interests of our farmers should find strong articulation in international forums. We need to develop far superior weather prediction technologies that can help us predict weather patterns sufficiently in advance. In many ways, farmers will face the most severe consequences of a situation that they had very little contribution to.

The governing principle of 'Common But Differentiated Responsibility' needs to be applied at 2 levels --- one, internationally it must continue to determine the international legal obligations that are imposed on countries. The move from the Kyoto Protocol to a new international legal regime must be premised on developed countries meeting their Kyoto obligations. There certainly cannot be a model which leans in favour of obligations based largely on current levels of emission.

However, inspired by the 'Common But Differentiated Responsibility' principle, agriculture in India must be treated very differently in the context of climate change compared to industrial production, energy production, transport sector etc. As a country we must realise that we have to revive our agricultural sector to achieve sustainable and inclusive growth. And as the pressure due to climate change begins to affect agricultural production, we need to take measures that provide an effective safety net for our farmers. We cannot, in the name of fighting climate change, impose more burdens on our farmers without first securing their

fundamental right to a sustainable livelihood. Of course, there is a price to be paid for our past-paced development but it would be unfair and unjust to let our farmers bear a disproportionate share of that price. Our neglect of the rural economy comes forces migration towards urban centres. Apart from the pressure on urban centres, such migration forces people to live a very difficult life in the cities. In the cities, their labour is exploited and they do not have access to the most basic amenities required to lead a life of dignity.

The situation that India's farmers face in the context of climate change requires global and local interventions. Farmers in developing countries such as India need to be recognised as a special vulnerable group in the context of global measures to deal with the impact of climate change. We must at all cost avoid the trap of dealing with agriculture in a homogenous fashion at global-level climate talks. Corporatised farming in large parts of the world cannot be compared to the situation in India where over 80% of cultivators are small or marginal farmers. The extent and intensity of vulnerability faced by our farmers must be accounted for in very specific ways while developing the next stage of international legal obligations and same consideration must be given to our farmers by our national and state governments. The impact of climate change can push Indian agriculture into a much deeper crisis than the one it faces today but we would be committing a serious error of judgment if we do not see the fact that it is by taking a whole range of socio-economic measures that we can reduce the impact of climate change on Indian farmers. The global, national and local conversations about climate change and agriculture cannot just be about emissions and it must instead be centred around issues of vulnerability and socio-economic rights.