

Speech made by Savyasaachi on the issue of Shifting agriculture

The question I want to address directly is.

Is Adivasi mode of livelihood contributing to carbon accumulation or not?

I need to formulate of his question a little bit. I would not like to use the word shifting cultivation to describe Adivasi livelihood. Shifting cultivation is a particular way Adivasi livelihood is looked at and there is a very big problem in this view in nomenclature. Briefly I will explain this and then I will go to my main argument. Shifting cultivation is the perspective of agriculture to the Adivasi way of living. What this terminology does is that it looks at only one part of the practice of livelihood and isolates this from many other parts of the livelihood which constitute Adivasi way of life. The perspective of agriculture focuses on the field, on the crop and the method of crop cultivation. Shifting cultivation therefore is a way to reduce a multidimensional practice of livelihood to a very single way which is crop cultivation, land capacity, labour and productivity. This is not fair because it does not see the larger practice of cultivating forest of nature and of different ways of looking at nature in the forest. The problem of using of the category of shifting cultivation is that it immediately brings to attention very limited parameters of looking at productivity. The traditional argument of shifting cultivation is that the carrying capacity of shifting cultivation is limited and carrying capacity is defined as the crops produced per acre of land and the amount of people that it can feed. And they argue that the carrying capacity of shifting cultivation get reduced as the population increases, which means that if you have to produce for 10m people, then the number of acres you have to devote to shifting cultivation will reduce and therefore the shifting cycle will reduce and therefore the forest will be destroyed. This is a political understanding of the question. This is not even a technically sound understanding of what shifting cultivation is. Politically is where does this population come from, which population are you talking about? If you look at the population of the adivasis who practice this cultivation, that population does not grow exponentially as we expect in agriculture societies in settled agriculture societies. In fact the population growth in Adivasi societies is negative. The population that is being referred to is the larger abstract population of the country. In other words shifting cultivation is expected to produce not only for the people who cultivate, but also for an X anonymous population that lies outside the frame of the practice of shifting cultivation.

How does this happen? Politically how does this happen?

I'll give you a small example of this. When I was doing field work in Abujhmarh, cadastral survey is done every year to measure and mark boundaries. So here is a small group of officers who come to this village and start to do cadastral survey. What they do is put one peg, put another peg and start by saying that this is the area that is devoted to this village and the rest is for the other village. What they do is they change the position of the peg by just two meters and they include approximately fifteen acres of land in the forest and as a result they reduce the forest that is available for shifting cultivation. Population has not increased; land has decreased. Just by a simple trick that is defined in traditional surveys that also define how much area is available for shifting cultivation. The biggest encroachers on the land available for shifting cultivation are the forest department and the revenue department. Why because in their world view in their perspective adivasis do not even exist as an entity. Therefore what they do is of no value. On top of that adivasis are working on land that does not belong to them. It belongs to the state by definition of its sovereignty and therefore the State has every right to take over this land whenever and wherever it likes. Certainly the area will decrease. The dynamics of population is very simple in these cases. This number of people sitting in this room is not a very big population. You reduce the room to this site and let all of us come into this space and suddenly it is a very dense population. Not one extra person has been born and yet the population has increased.

How has it increased?

Not because people have been born, but you have shrunk the land, you have people coming into this land. You have changed the dimensions in which people live. Something similar is happening to the space in which adivasis live. Give them the necessary space, the necessary time for their livelihoods to be robust within that own frame of reference. And therefore it is quite factually proven that the shifting cultivation cycle that areas that was once 48 years have been reduced to 24 years, reduced down to 12 years, reduced down to 6 years, reduced down to 2 years and in that process of decreasing time scales the forest is gone and therefore shifting cultivation is blamed for anything that happens to the climate, anything that happens to the forest and adivasis are compelled to join the mainstream and participate in the so called benefits of modernity. This is a totally political argument which does not stand any test to the technical,

social, cultural, philosophical recissitudes and boundaries of the practice of livelihoods in Adivasi societies.

I want to emphasize on the word livelihood because this is the word that is most in use today, it is most inappropriately defined and most haphazardly understood. Livelihood is not equal to employment, livelihood is not equal to jobs. We need to understand livelihood where livelihood actually happens. And I want to illustrate to you through the study of Adivasi livelihood that a livelihood is something that involves a certain amount self autonomy on the question of technical skills, in questions of problem solving in terms of intellectual ability in technological reliability and least of all you belong to a power structure in which there is an employer, who will give the work, who will lay down the framework and employees who will participate only an those terms of reference.

What is the mode of livelihood that adivasis practice?

Now before we get down to adivasis modes of livelihood, I want to say a few words on climate change. Our perspective on climate change will determine how we look at a different way of looking at livelihoods. Climate change so far, and all of this is known to all of us. I don't need to repeat this. Ill briefly summarise green house gases, ozone depletion, hole in the atmosphere, rise of temperature because of rise of temperature climate changes across the words, impact on livelihoods. Plants don't mature in the same time, there is always a shift in the life cycles and a lot of other things that are associated with this. This results in the heating up of the environment. The economy has become heated up. Why is the economy heating up? Because it is increasing at a faster and faster speed. We will look up the results of this speeding up a little later. But the technical answers to climate change are also prescribed by this process, without questioning this statement and what are the prescriptions, scientists are considering constructing a huge plate made of stainless steel or some material which they want to put in the ozone hole so that the radiations that are from the atmosphere do not come down and there is no heating up of the system and this is a very serious issue. There is a whole book devoted to how a technological solution is possible to present radiations from the sun coming from the ozone hole.

The second level of interventions says carbon trading. Carbon trading means that if I want to produce X amount of carbon. I have to grow X amount of trees in order that the carbon may be

utilized. But I do not have any land in my country so I will go to third world countries and say, look I will give you so much money and you plant so many trees for me, so that my carbon footprint will become zero. In technical language terms this has been called carbon colonialism. There is a very good essay in a journal which describes this as carbon colonialism.

The third thing we are trying to do is to reduce our personal carbon footprint. If you go to the internet, there are tables and questionnaires which you fill and you will know what your carbon footprint is and you are therefore requested to reduce your carbon footprint by engaging in activities that do not produce so much carbon.

The most difficult question here is and I think this is the question that is the turning point in our debate/discussion. In our everyday life, the automobile industry is making very deep inroads and everybody has a car. The government is very happy to give you a loan for a car. Right there immediately! You go to a bank and you say you want an education loan, they say it will take about two months and they can't give you more than 25% of the loan. Why because these loans are not going to be recovered. But if you want a loan for a car, even if my salary is not up to the mark, you get a loan there and then, the manager has the authority to sanction Rs. 5 Lakh for a car but not Rs. 2 Lakh for an educational loan. So everyone is buying a car and carbon released from the car is contributing to carbon accumulation.

In New Zealand there was this question. Can we stop manufacturing cars for a certain period? It was a very serious discussion and the question was, what will we do with the labour and infrastructure that is there to manufacture these cars? The answer was that is going to create even worse carbon accumulation than the production of cars and therefore this idea was thrown away.

Within this framework, there is no solution to climate change. There is this framework that produces capital. As long as we think in the framework of capital, as long as we think of changes that involve more investment of capital, climate change is going to get no solution. Why? My hypothesis is capital to survive needs a huge army of labour. Surplus cheap labour is also called a reserve army of labour. So long as there is increasing rates of unemployment, climate change is going to remain. Unemployment is going to add to climate change in ways you cannot even know.

Now what do you mean by unemployment? Unemployment simply means I have nothing to do. It means I have lots of time but no work. This is one face of unemployment. The other face of unemployment is that I do so much work but I don't get enough money for the work that I do. These are two very clear faces of unemployment that we see across in different parts of the world.

I think we need to have a labour oriented perspective to climate change. And it is this perspective has at least two dimensions. In very simple commercial language, we work on nature to create our basic necessities. This is very simple. Suppose we were to conceptually understand this. Nature is an external component. So we can say nature is part of the non human natural world we live in and we are human beings and there is an internal nature to us. That is my mind is our philosophies, our thinking, our emotions and so many other things and production and reproduction happen when non human nature and human nature will interact. Climate change is telling us that in the external nature, there is an immense problem. In the external nature because of the way in which the economy is heating up and what I mean by heating up is that the speed at which you are drawing resources from nature is so fast and the rate at which nature can reproduce these resources is not so fast, the gap between the two is creating the problem of exhaustion. I am running at a speed of five miles an hour and I am not able to regenerate that energy, I am not able to go to the field tomorrow, my stamina is not getting regenerated confronting a condition of exhaustion.

This exhaustion is represented in external nature by the depletion of biodiversity resources by mining etc. Because none of these resources can regenerate in the life time in which capital will require it to be reproduced in order for capital to be invested in technologies for production. So the rate at which capital reproduces is the rate at which they need natural resources and if they don't get natural resources at that rate then there is a problem and that is one of the reasons why there is depletion of green cover, why carbon that is getting emitted is not getting absorbed and that is why there is carbon accumulation in the atmosphere. Why? because there is carbon emission into the atmosphere, therefore there is radiation, therefore there is ozone depletion and therefore there is all the problems we create. So climate change is telling us of exhaustion in the natural world, external world.

Now this is an incomplete picture. There is something happening parallelly which we have to keep in mind if we have to get a holistic picture of what is happening. Everybody has heard of AIDS. The acronym says Acquired Immune Deficiency Syndrome. Forget about the particular virus. Look at the metaphor that in the 21st century, the immunity systems of our body are declining and this is not only manifested in AIDS, it is manifested in all the life cycle diseases which we know today. I fall ill today I need four times the time to recover. I take antibiotics and I have to pay for it for the next one month. The antibiotics cure me in three days time but I am recovering from the antibiotics over the next month. Everything that happens to us is exhaustion.

So parallelly what is happening is that the internal environment is also getting exhausted and this is a serious crisis. The strength of an economy comes from the fact that the external nature (non human nature) and human nature are both sturdy. Then there is a good prakriya. But the external environment is getting weak and the internal environment is getting weak and there are two weak environments interacting with each other and creating a problem which we call us climate change. Not only is external nature not able to recover, our internal nature is also not able to recover and we have two weak links that come together to create the phenomenon we call climate change.

I think this is the perspective I would like to put on the table. If this is the perspective, what is it we need to do in order to change the situation and that is that we need to open our minds to the possibility of plural paradigms of works on nature and productivity, plural paradigms of productivity, of production and reproduction of social life. We only know one paradigm and that paradigm in being used to understand everything that happens. Shifting cultivation is one example of that one paradigm that is being used to understand everything that happens in the world.

A paradigm has three elements definition of work, definition of nature, definition of productivity and I'm saying that in India and across the world, those three paradigms are defined very differently. There are many paradigms of work, because the nature of work, nature of nature and nature of productivity are differently conceived by different societies. I think that pluralism is very important to understand how we can wrest with the problem of economy and its relationship to climate change.

Having said this I want to now position and describe to you what Adivasi modes of cultivation actually are and how we can position Adivasi modes of production in this scenario of climate change. How we are to position Adivasi modes of livelihood in this particular mode of describing climate change.

My line of argument is that in Adivasi modes of livelihood there is a robust external environment which is nature/the forest and a robust internal environment which is the human being and these two robust environments interact with each other to produce what we call as Adivasi livelihood. To give you an example of the robust environment, I will give you an example of how cultivation happens. I won't call it shifting cultivation. I will just call it cultivation and to give you an example of robust external and internal environment. I will give and how do they handle for an example of how people deal with illness and how do they handle problems of health.

Let me begin with the internal environment of how they deal with it. I want to also say that so long as the external environment is robust. Our internal environment will also be robust and likewise when the internal environment is robust, it also determines the robustness of the external environment. The level of pain that you can withstand and the speed at which you can recover from fatigue, is a test of your fitness. That means if you have walked a hundred miles and you can recover from that fatigue in two days time as against if you walk a hundred miles and it takes you one year to recover.

You know that there are two different understandings of fitness that we have. In adivasis society and there are many reasons why that happens, you walk 75 miles and it takes you not more than 2 hours to recover you are back to whole again. An example of this. Here is a friend of mine who was chasing a bear in the forest and in the process of chasing the bear a bamboo stick pierced from under his foot right across the ankle till his calf. He was in living pain when I met him. His pain was so much, that even if you look at it, he would scream, that was the level of his pain. But if you don't look at it, he had a smiling face. I said look you will get gangrene we will take you to the doctor. He laughed at me and said you go, we will see you two days later, I came back two days later, and he was walking and running. I asked him what did you do? He said simple. It took me one day to make up my mind to push the bamboo right up to that I could see it on one

side. It took me another day to prepare my mind to pull it out. I went to the forest took some herbs, stuck it there I am fine.

This is the robustness of the inner self, of the inner human nature. On external non human nature, I will describe to you what shifting cultivation actually ought to be. Shifting cultivation or cultivation of a plot in the forest is actually cultivation of the forest. This is only a byproduct of what we actually do. You are actually looking after the forest by making a small clearing for your own food. If you remove the forest from there, then is simple agriculture put if you want to see the relationship between the clearing, I won't call it a field, I call it a clearing. When you cut the forest you make a clearing. This clearing is in a very intimate when organic relationship with the forest around.

This is how it works and I am assuring that you are giving that the Adivasi has all the minimum conditions that are required for productivity. This is a fair demand. It is not an unfair demand. Any industrial unit demands its minimum conditions for productivity which includes labour, finances, technology, capital knowledge etc etc and industry will fight for it. I am making the case that Adivasi should be given the minimum condition that are required to practice this agriculture.

I am giving you due description of it. The people that I live with, with whom I practice shifting cultivation or jhoom. It is called Pendha. It is a way of describing the clearing and its regeneration. So in the best scenario, you have at least 24 clearings to make over a period of 48 years. How does that happen? The village is in the centre and you have forests hills all round. You cultivate one clearing and you move to the next. Unless you have at cultivated all 24 clearings. Every plot of clearing takes at least two lunar years for cultivation. In their mind it is not one lunar year but two lunar years because the work cycle is so much that by the time you have harvested your crop, it is already into the second year you need to prepare your clearing say in the month of May. But your threshing and by the time you bring the crop home does not happen till the end of May. So you have missed the cycle you cannot start wherever you want, you have to go by cycles of nature. So when you miss the cycle you have to wait for one till year until you go back to the beginning point.

A very important phenomenon is that your food lasts only nine months. There are three months in every year which are periods of relative hunger, very important phenomena in this cycle. It is a phenomenon of collective fallow. Fallow in the Adivasi language and philosophy is time for regeneration. A little bit of hunger is very important for regeneration. As we all know we should leave a little space for two chapattis and not fit your stomach fully. Whole idea of fasting is very important to keep your body fit. Now this is a phenomenon that is practiced for 3-4 months in Adivasi society. Because nature is not going to give you very much. Nature is in its own cycle of reproduction you have exhausted your food and for three months you are in a period of collective hunger. Food is wanting but you are not going to die. Then you begin the cycle again.

So every plot, every clearing gets 48 years of regeneration and that is a huge amount of time forty eight years of regeneration for one single plot. What regeneration happens on plot? Everything regenerates. You get all your fruits, you get all your berries, all your roots all your non grain food comes from these, all your proteins. A very important feature is that the forest is in the foundation position. What does a foundational position mean?

I will divert a bit and then come back to it. I will ask the question, how do you value the forest? There is always this calculation of including the cost. I did some calculation of how do you value a forest for which compensation has to be given. And my research told me. They did not do it. It just cannot be done. How do you value things that are invaluable? There must be some way in economic theory of how do you value things which cannot be valued in money how do you value them? I found a very interesting article written by a lawyer who is trying to understand how to frame laws and jurisprudence practice for the destruction of an immensely valuable heritage for which there is no price and forests is one of those heritages. He found that value is created in so many ways in economics. Scarcity creates value, labour creates value uniqueness creates value but none of these theories actually apply to something that is invaluable in monetary terms. You have no parameter in mathematics to value forests. Why because the top soil that you create in the forest is created over many hundreds of years and there is no way to estimate what this topsoil is. How much time does it take?

A friend of mine Vasant Kothan who is practicing organic farming somewhere near Nagpur. He once told me that his mission in life is to create one inch of topsoil before he dies. That is what he wants to leave for the next generation. And I realized that this is a very huge task. Now

foundational position is therefore a concept here I mean to suggest that things that have no value in this sense are actually in the foundation of a world view. You remove that and everything falls and the metaphor is that if in a building you remove the building pillar, the foundation falls. That position in your world view which will hold everything together is given to those things that cannot be valued in money and these things have value which is called the value of the foundational position.

Now when the forest is in a foundational position then you get a different world view. To put the forest in the foundational position is that the tree which is there is in the centre of your world view determining everything else that you will do. I will not go into what does it mean to have a tree in the centre of your view, because we don't know what a tree is actually. When I came back from the forests and ask botanists what is a tree they had no answer to it. What is a tree? Tree is xylem, phloem, monocotyledon, dicotyledon, so many years so many rings. But what is a tree no idea. Adivasis have a good idea of what a tree is. The multiple paradigms of production, work nascent production are of two types. One in which the tree is in the centre of production and the other where it is not in which money is in the foundation position. And climate change is a result of a production in which forest is not in the foundation position but in which money is in the foundation portion in which capital is in the foundation position and we cannot equate the two and say one is equal to the other because they do two different things altogether.

My last point is that we produce exchange value and we don't produce use value and what is use value, you need a little bit of explanation on that. Use value is that you need a list of attributes that a material has that can be harnessed for production. So wood has certain properties and those properties can be used to make a table, chair, stool, building etc. Similarly copper has certain properties that can be used for production. This is a very superficial understanding of what use value is. It is a very utilitarian understanding of use value.

Use value is potentiality. It is not these attribute that constitute use value, it is those processes that create these attributes that is use value. The reproduction of the earth's capacity to self reproduce is of use and not that the world has sulfur, copper, manganese. That is only a peripheral//limited understanding of use value. The crisis in the world today is that nobody produces use value. You are undermining potentiality everyday and a result of the undermining of potentiality is exhaustion.

Exhaustion is a proof of the fact that your potentiality has got undermined. That means that you are not able to regenerate, you are not able to recuperate. You are not able to fight exhaustion on your own steam. There is a very interesting book which discusses this, it is called Crack capitalism.

In the book there is an example given. If you have a choice which would you choose? Your son's birthday party or to attend a conference where you will get a contract of Rs 20 crores. If you attend your son's birthday party, for that moment you have created use value. For that moment you have defeated capital. In day how many times are you creating use value?

Produce and reproduce use values. Enough of exchange values that will undermine potentiality. Adivasi livelihoods have the capacity that has the potentiality that can help us to regenerate use value in a deeper sense of the word. I would therefore use to place them on the frontiers. We cannot become adivasis because there are no forests left, but there are lots of things we can learn. And the first thing we can learn is not to forget. We forget very soon. We are so involved in the production of exchange values that we forget that we are losing use values. Adivasis need to be kept on the top in order to keep reminding us that we have to work hard to enhance and enrich the process that produce use value. We can't do away with exchange value because that is the way the world is. But certainly we can enrich use value in order to counter climate change.