

**BIODIVERSITY, LOCAL DEVELOPMENT AND THE FINANCIAL CRISIS:  
AN INTERVIEW WITH VANDANA SHIVA\* ♦**

Question: *The G20 has just concluded with several proposals to address the global financial and economic crisis. What do you consider to be the root causes of this crisis?*

The root cause of the crisis is deregulation. It is allowing the forces of greed and allowing the forces of fiction to rule without any governance. Greed basically meant that financial institutions and banks could create instruments that would multiply their profits, their bonuses, even while they put ordinary people at risk. The subprime crisis is such a good example where home owners lost their homes but the investment bankers walked away with huge super profits, first through the mortgages, then through the securitization, then through the collateral debt obligations: they created instrument on instrument. Now, if I was to do something like that in science, as a physicist, if I created an equation and the equation didn't reflect reality and I thought creating more fictions would get me closer to reality, I'd just be called insane. But that's the kind of system we've allowed to grow.

As far as the G20 is concerned, I live in a third world country and I know what the IMF has done: if you ask me, this is not a gain for people of the South. The G20 outcome has been presented as “IMF will now give more loans to the South”. Basically what the IMF is going to do is give us loans with very high conditionalities, and the very investors and businesses who are collapsing today will survive by increasing the debt burden on the South and by forcing work out of the public sector into the private sector of global corporations. Whether it will be in mining or in electricity and energy or in food, I see this one trillion dollars as destroying the South in order for Northern businesses to survive a little longer. I think it's criminal but I also feel that the rich and the powerful in the North have got so used to being very distant from reality that the best of leaders, including our dear Obama, can be fooled to imagine that something good is happening. He doesn't look at every piece of paper; he doesn't understand what these instruments will do. IMF has caused more hurt in the South than any other single agency. To put them in charge of a rescue plan is to make the butchers in charge of the life of the goat or chicken they're going to slaughter.

So I really feel we need a very new citizen's movement to say “freeze this lending” until IMF has reformed and the conditionalities go. The movements are always taking place, the only thing is when they take place from the bottom they're called riots, they're called IMF riots, not people's democracy movements.

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Question: *To address the current global challenges, including the global financial crisis, what role could a “territorial” or local model of development play?*

I think it's only strong local economies that can rescue the economic system now, and this is vital for many reasons. The first is that it is only in the local economy that you actually can generate the livelihoods and jobs that people need. Globalised economies exploit a region and then abandon it. Just travelling today to Florence, I read how Intel took over entire areas of the Philippines, and now hundreds of thousands of people are being abandoned as they move out. [In] Hungary, people bought houses and built up in their leisure economy and now with the slow-down they're just abandoning the areas where people started to depend on tourism. This external control system cannot be sustainable.

The second reason why local economy is absolutely vital is that in the local economies people choose their priorities. People choose that food is important, water is important, and in the local economy women are the strongest players.

The global economy made many promises. Globalisation was in fact part of that promise we have seen unwinding in front of our eyes. Not even 15 years of WTO and we are seeing WTO in a deep freeze and, in addition to that, we are seeing the institutions that drove globalisation themselves in crisis, whether they be the banks, whether they be the big automobile industries. The time for big is over: they are the dinosaurs of our time. We now need the place and space for the evolution of the quick adaptation of the small: that is what is going to allow us to deal with the financial crisis, with the climate crisis, with the food crisis, and the multiple crises that face us.

Question: *One of the issues you have embraced is preservation of agricultural diversity, which you say is under assault from the increasing industrialization and globalization of the world's agriculture and food supply. In your opinion, how can agricultural biodiversity be preserved?*

I think the first thing for the protection of diversity and local agriculture is to respect it. The reason it was so easy to destroy diversity is because people see it through what I have described as “the blindness of the monoculture of the mind”: if all you see is soya, you'll only plant soya, you'll only eat soya. But if you realize that the world is full of so much diversity that looks after people's needs, then you will protect the diversity that ensures that there is food security. A very important aspect of biodiversity is that **women** grow biodiversity. I had to do a lecture for FAO a few years ago and I remember, while researching for that lecture, reading that on 5% of the land that women control in Nigeria, on home-gardens, they produce 50% of the food of Nigeria – on 5% of the land! Now, that is an example for every society: tiny pieces of land with love and care and with a lot of biodiversity. We can maximize food production per acre.

It's important to not have a false idea that people working with the soil, people working on the land, live a degraded life. In all my years in India, the proudest people, the proudest women I meet are the farmers and the peasants, and yet from the outside there's always a complaint: “oh, farming is a horrible activity, it's such a drudgery, it's such a curse” The people who are engaged in it do not see it as a drudgery, because for them it's a way of life, just as much as for the mother bringing up a baby, changing nappies, getting up in the middle of the night is never a drudgery. For a farmer, serving

the earth is a fulfilling act and I think this culture of bias against farming is probably the biggest block we have in making that transition, and that bias is held by people who haven't farmed. I would say, if I had to make one decision in the world, it'd be to put everyone through a gardening course, put everyone through an internship on a farm. You can't do anything - you can't become a politician, you can't become a doctor, you can't become an engineer - until you've worked 6 months on a farm: then we'll have a human revolution!

Land is the only thing that doesn't grow, in the sense it's not elastic, but its fertility can grow with human care, and its fertility can disappear with human carelessness. I am very troubled at the fact that Bill Gates and his big foundation are giving money for Africa under the Alliance for the Green Revolution for Africa to sell chemical fertilizers. Chemical fertilizers are the worst abuse of land, they leave the land desertified, they kill the soil's micro-organisms, they destroy the soil's ability to hold moisture, they provoke floods, they create climate change, and the combination of these many, many impacts. In 2009 to have a blind following of a technology that emerged fifty years ago out of the war economy is tragic, and for someone who thinks he's on the cutting edge of technology it's very primitive.

I think care for the soil means we have to do organic farming, care for the soils means we must give back to the soil what we've taken from it.

*Question: Could you explain the work of The Commission on the Future of Food and Agriculture? What role is played by regional and local governments?*

I think we've had a model of globalization that worked from the top. It was a globalisation for global corporations, it was a globalisation based on global institutions, like the World Bank, the IMF and the World Trade Organization. I think a wonderful thing with the International Commission on the Future of Food based in Florence has been that it has created another model of internationalization. It's local government, regional government, supporting a global network of the best experts and movements related to agriculture. I personally feel extremely privileged to be the President of this Commission along with Claudio Martini, the President of Region of Tuscany, because I think that bringing people like Wendell Berry and Carlo Petrini on the same table, we changed the defining of our food and agriculture issues. Terra Madre came out of this Commission, because after the first manifesto on the future of food it became clear that till the peasants of the world unite, we will not be able to define another model.

So far the global model has been a Monsanto model of seed monopoly with GMOs and patents; it's been a Cargill model of free trade dump with huge subsidies. We now need another model and that model is decentralized cooperation. I would say that, you know, decentralization is not isolation, decentralization means autonomy, it means sovereignty, **and** it means networking. You can have hierarchical domination from the global top, which is what current globalisation is, or you can have empowered networking across the world through decentralized cooperation. The International Commission on the Future of Food is an example of such a decentralized cooperation, with the leading role played by a regional government.

Question: *One of the objectives of the Navdanya project “Seeds of Hope” is to bring rarely heard views from the South to catalyze solutions to global environmental and social justice issues. How could universities and research institutions, from the North and South, contribute to this, given that local and indigenous knowledge is often marginalized by mainstream scientific traditions?*

Navdanya of course is a movement for seeds saving for organic farming, and for direct marketing of organic products. Over the last decade we have witnessed two hundred thousand farmers in India committing suicide because of the indebtedness caused by buying non-renewable seed, including genetically engineered BT cotton. Two years ago, while doing a pilgrimage – I called it “the seeds pilgrimage” - through the suicide belt I realized that the reason farmers were getting deeper and deeper into debt is that they had lost their seeds. That's how “Seeds of Hope” started, to distribute seeds, non-GM seeds, we have trained farmers to do organic farming and today farmers doing organic cotton are earning ten times more than the BT cotton farmers.

How can Universities and researchers have a role in something like this? They can do the kind of research we've done. We did research on what does BT cotton do to the soil and we've found that 23% of soil organisms have been killed by the toxic gene. Universities should be looking at what's happening to the soil when GM cotton is introduced, they should be looking at what's happening with pesticides when pesticides are used in agriculture, they should be doing socio-economic analysis along with farmers in an honest way rather than the fudged propaganda from big agri-business. Monsanto claims Indian farmers have become millionaire, but they are dying, and we have just finished another survey that shows 84% of farmers suicides in India in the area of Maharashtra where the “Seeds of Hope” programme runs are connected directly to indebtedness caused by BT cotton. Every one of these aspects, what happens to women when they are left behind as widows? What are the alternatives? Organic farming, as we have shown, does much more.

Why isn't there more research from Universities participating in the farming communities to establish that agro-ecology works better for farmers, local knowledge works better for farmers? After all, we are now having an international assessment on technology and science for agriculture, the International Assessment of Agricultural Knowledge, Science and Technology for Development, and they have shown that small-farm knowledge, traditional knowledge, agro-ecology are the best way forward for food security. This needs to be reconfirmed again and again by Universities in areas where they are located, in the regions where they are located. I don't think it's just a matter of excitement, I think these studies are stimulating for the mind, it's stupid to keep reproducing dead stuff, you know, to be brain-dead in our ivory towers, but I think it's also a social obligation: researchers and University professors get public money, they are paid to do a public job, part of that public job is to relate to society, especially to the agrarian crisis, amplify the solutions, and expose the false propaganda.

Question: *How could the younger generations be involved in this process of preserving and sharing local knowledge?*

[I think the first thing] is that we definitely involve the younger generations in all our work. We have a whole programme on biodiversity knowledge to transmit to future generations all the rich knowledge that especially older women have, about all the biodiversity that can be used and grown. The reason young people are leaving farming

is not because traditional knowledge is not valuable and worthwhile: they are leaving farming because the global economy has ensured that farmers are cheated and exploited, get no money at all; dumping is robbing Third World farmers of their rightful share to income. I did a calculation at the time of the Cancun WTO that because of depressed prices linked to the subsidies and dumping, India and Indian farmers were losing 25 billion dollars a year, and we just calculated it over 5 commodities. If you spread that across every agricultural product, across every continent, we are talking of a bailout much bigger than what has been announced at the G20, except that in this case it is the poor farmer who is bailing out the rich agribusiness, and in the process the young people look at their parents in debt, they look at their communities without a future and say "I'm not going to stay here."

The single most important step to take to keep young people linked to the land and benefit from traditional knowledge for our future is to make sure these false prices don't rule. The collapse of Wall Street is a collapse of the false prices, including the speculation. It's time to put aside the false prices. The G20 didn't say a word about the false prices of commodities: I think we'll just have to keep stressing this and I don't think any young African would leave Africa if the Northern exploiters weren't robbing Africa of its future. And also migration needs to be connected deeply to the destruction of Africa rather than criminalize the victims, which is how migration is treated.

*Question: Subsistence agriculture in Africa has always been women's domain; however, African rural women are encountering more and more difficulties in having access to seeds and inputs. In a context where possibilities for rural employment are very limited and food prices are growing, this is threatening food security of many rural households. How are local government institutions addressing this issue?*

I think the "Women and Biodiversity" Network, that started from Florence, which is also a partner with the "Women for Diversity" Network that Navdanya started, is addressing the issue of women's livelihood and rural development in women's hands through putting biodiversity at the centre, and that means that in every village we should have seed banks controlled by women. Seed is something that women can reproduce, seed is something that women can share, and if seed has disappeared in one village, it doesn't mean it has disappeared from all villages. This is a time for rescue. Corporations like Monsanto have destroyed seeds in many parts of the world, but just as in the "Seeds of Hope" programme we brought seeds from regions where seeds have not disappeared and rebuilt the agriculture as agriculture that would sustain life rather than create suicide. I think that has to be the global response. The "Women and Biodiversity" Network also reinforces women's traditional knowledge, values it, and by valuing it and respecting it, puts it in the mainstream and says "this is what we need for the future".

I think the most important role that, for example, the "Women and Biodiversity" Network can play is showing that a combination of small-farm ecological agriculture, artisanal crafts and handicrafts is the economy of the future. The economy of industrialism was based on fossil fuels; fossil fuels have given us climate change. The economy of fossil fuels led to destruction of creation of beautiful products by the hand: it laid humanity waste, it laid human creativity waste. We will not be able to solve the climate problem; we will not be able to solve the economic crisis problem till we put the creativity of the human hand and the human mind back into the picture. Handicrafts are the ultimate expression of that creativity, and while solving a basic economic problem, it also creates more beauty: there is nothing more ugly than the plastic world that petro-

chemicals have given us. It is time to return to the natural, and the natural not as a luxury, but the natural as a resurgent economy from the base for rejuvenating livelihoods and building economies again.

Question: *In Mali, Aminata Traoré, is carrying out a symbolic struggle in order to support local women's capacity to produce handmade crafts such as organic cotton bags. Her aim is to engage international cooperation in supporting these local initiatives. In your opinion, what role can these initiatives play?*

Well, you know, we are producing bags like this for “Seeds of Hope”, this is not just organic cotton, but this weave is what we call in India “khadi”, handspun. The hand spinning generates livelihoods, hand-weaving generates livelihoods, at every step of the chain they're livelihood-generating; whereas when industries make plastic, one giant factory with about a hundred employees produces junk that then piles up in our waste, in our garbage dumps.

You know, wherever women are economically productive, women have higher levels of respect. The minute women are pushed out from the productive system, you have higher levels of violence against women, and you have higher levels of deprivation of women's work: so this is a very important part, work is a very important part of women's development.

So this is what *khadi* is, this is what Gandhi turned into a fabric of freedom, this is what we got our freedom through, and this is what we're going to get our freedom through again, in this period of global collapse.