# Comments on the State of the World 2005: Redefining Global Security

by
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It is a pleasure to contribute in this hall on the discussion on the World Watch Institute Report "State of the World 2005: Redefining Global Security." And in fact it is the 21st book in the series. So we have a long series of books every year looking at the state of affairs in the world, and considering what the problems are and what the perspectives are. And I have to say that this last report of 2005 is not as doom-day thinking as many of the earlier reports. I think that in that respect it is more realistic and it is also much more promising and I am delighted that I have the opportunity to give some comments.

It is a nice book in the series. It gives a lot of facts and a lot of figures and although I know you can lie with statistics, I think in this case all facts and figures are correct, at least in the chapters that I have considered more extensively.

It is a comprehensive report; it takes into account not only the traditional things considered in earlier reports related directly to the physical environment but also the socio-economic and cultural environment and, last but not least, considering security not only in terms of the physical environment but in all the other aspects. And the earlier commentators indicated very clearly what should be done and could be done in order to make the world more secure and safe.

There are many facts and figures and some general patterns which are investigated and there are some specific examples. I have looked carefully at chapters 4 and 5. Chapter 4 is on food security and chapter 5 is on water and of course they are closely related. I have to admit that the figures and also the analysis which are presented in chapter 4 and 5 are stimulating. But I also have some comments on what is not in them and what could be in them.

First of all that food security is described and especially some aspects are discussed. For example, the aids problem in Africa is causing a major problem for the availability of labour and as a result of that decreasing agricultural productivity. That is only one element, but it is certainly not the most determining element in many places. And what I see here is that the labour productivity, which has stagnated in Africa, is not analyzed in detail. If it was analyzed you could also see that it is also amplified by aids, because many people are no longer there who are necessary in this area for weeding and as a result of that there is no agricultural productivity. But that should be analyzed in detail.

What is not there in Chapter 4 are the mega trends which we see in agriculture and food security all over the world. If you consider the last one hundred years, then we have seen that although the number of people in the world has increased from some 1.5 billion around 1900 to more than 6 billion in 2000, in general the amount of food per capita has increased considerably, in the last 30 years with 20%. And that is of course a very stimulating figure. That does not mean that there are no longer hungry people. There are still 1 billion people who are hungry. But in many places, for instance in Asia, it is more an allocation problem than a production problem. In general terms the productivity has increased considerably and that is due to the agricultural productivity per hectare. That productivity has increased tremendously during the last century. In the last 100 years the expansion of agricultural productivity per hectare was about nine-fold - per man-hour, three-hundred fold. And this enormous effect is not discussed in the book and also counter-intuitively the productivity per input has increased. And as a result of that you see that at high production levels counter-intuitively the environmental side effects are lower than at low production levels. "Counter-intuitively" because many of us have seen the law of diminishing return and the law of diminishing return

is only there when you have only one factor which you are affecting. But agriculture normally is a combination of factors. And that is not there in the book. And as a result of that you are promoting - and that’s what I see sometimes - low productive agriculture rather than high productive agriculture, which is necessary in order to feed the world.

We have been rather successful, with the exception of Africa. Africa is not explicitly mentioned in the book which I think is very important. This is because, whereas the situation all over the world has increased and improved considerably in terms of food availability, that is not the situation in Africa. There productivity went down with about ten percent per capita over the last twenty years. There is not one reason for it. There are a lot of reasons: weather, deteriorating soils, only three crops determining the food availability in the world: wheat, maize, rice – 80% of food, wherever you are in the world, is dictated by these three crops. Africa is different; there it is only twenty percent dependent on these three major crops. And the investment in agriculture stays far below other places in the world. You see that in Africa people are suffering from an unsustainability spiral due to poverty. In the book you see many discussions on unsustainability due to richdom. But unsustainabilty due to poverty is more dramatic and world-wide much more seen, than unsustainability due to richdom. Or over use of inputs in rich situations, under use of inputs in poor situations. .

I don’t see the mention of other elements of the mega trends: productivity rise is one mega trend. Second, the taking into account of more objectives than just productivity such as environmental issues and the issue of social structures in agriculture in many rural areas is not explicitly mentioned - this is a vary important mega trend that is there. One mega trend is that we are now thinking in chains rather than just working on productivity per crop:” working from spade to plate”, which has considerable effect on food security and the environmental side effects. And finally, food and health is not mentioned in the book and that should be there.

I am wondering” what is the relation between agriculture and water”? Chapters 4 and 5 should be combined, because the major user of water is agriculture. Fresh water in irrigated agriculture is the major use of water. And if we consider that there will be wars on water then this is due to the fact that water is mainly used for irrigated agriculture. 80% of all food in the developing world and elsewhere is from irrigated agriculture. So there is a fight for fresh water.

If I look closer at chapters 4 and 5 you can see that on top of the same analysis which we have seen recently there are recommendations. First of all I think that we need more sustained intensification: higher production per unit of area. Why? Because it is better for environmental reasons but is also possible to save much land for nature and in that way for bio-diversity. The best way to guarantee bio-diversity is to have a lower number of hectares for agriculture. In the European Union for instance we use 150 million hectares of land and it can also be done with 50 or 70 million. This is also possible in Asia and Africa.

What we also need is a double green revolution. Not only more productivity - and that is necessary because of the increasing number of people in the world, but more specifically in Africa - but we also need much more careful use of the environment and higher efficiency in the use of external resources and especially the nature resources and more specifically water. At this moment in an irrigated rice field we are using 5 thousand kilograms of water per kilogram of rice. It can also be done with one thousand kilograms of water per kilogram of rice and the most sophisticated systems use only 500 kilograms of water. Why not do it? That requires investment in technology and agriculture. So that is the first recommendation.

This does not mean that I am blindly in favour of all the fruits of modern agriculture such as GMOs or unlimited use of pesticides. On the contrary, by using advanced agricultural methods you will see that you can also make careful use of GMOs whenever necessary.

It is also important that the campaign against hunger should be not only on acute hunger but more explicitly on chronic hunger. Chronic hunger requires structural changes in the way agriculture is managed in individual fields but more importantly on a regional level. If we are not working on a higher-scale level we are not making use of the possibilities to safeguard the

environment, to manage water better and to spare a lot of water and a lot of nature which is possible when we are considering the right agriculture at the right place with the right methods.

That requires a lot of investment also in agro-technology. At this moment it is out of fashion and it is out-of-date to invest in agriculture and agriculture technology. I would like to plea here that if you would like to safeguard the food situation and improve food security, the only way to go is to have a higher productive agriculture and especially in Africa. If that is not done then we will come into a situation where it is becoming more unsafe, more insecure and as a result of that we will see more people suffering, not only from hunger but from death as a result of hunger. And if the State of the World Report 2005: Redefining Global Security is aiming also at perspectives then I think that’s one of them. And that should be mentioned more explicitly in chapters 4 and 5 of this report.

Once more, I appreciate it very much that I had the opportunity to have this discussion. I think it is also very stimulating to have this discussion. The Worldwatch Institute reports have given an enormous contribution to the debate which took place in the world and in that way sustainable development is now a well accepted term and this is due for a great deal due to all these reports which we have seen over the last 21 years.

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