# Chaired by Akinori Noguchi\*

## Appanah:

Dr. Reifschneider has highlighted the strong role that the CGIAR systems are undertaking in agriculture and natural resource research in the world, and he has emphasized the partnership with Japan. Quite a lot of the developments in the past with the CGIAR have been mainly with technological development, and that is perhaps why we have improved our ability to feed the world.

Yet Professor Hara mentioned that we are beginning to face considerable changes in economic issues, socioeconomics, and policies that must be dealt with. Dr. Reifschneider alluded to some of them, but I think that the CGIAR will be addressing these much more extensively henceforth. Of course, the things that he mentioned were mainly technological. What is the thinking of the CGIAR with regards to these changes now taking place?

# **Reifschneider:**

Indeed, the complexity of issues that we deal with has increased, and we believe that it will continue to increase because of the pressure that we have with population growth and limited natural resources available – water, I think, is a very good example. I believe that the partners and the CGIAR fully recognize these tremendous challenges. One of the major changes being implemented in the system to better deal with that is the establishment of large challenge programs that allow the multidimensions that you have mentioned to be taken into consideration when trying to design adequate policies, products, and technologies that might be eventually of use in developing countries. We have started these challenge programs to also help the system internally in terms of increased partnership among our centers not only with external participants. But we have only just started. The oldest of the challenge programs on water and food is about one year old. It just launched its baseline conference about two weeks ago in Nairobi. We believe that this presents a platform to deal with the very complex issues that we have ahead of us.

If you compare the work and simplicity in relation to how we tackled issues in the 1970s and how we tackle issues today, we need to pay tremendous attention to productivity gains. This is an issue that encompasses policies, natural resource conservation, considerations for future generations, and of course social concerns. Some of the major discussions that we have today emerged because of differences in social perceptions.

### Noguchi:

I wonder about the influence or effects of the changing food life in each country. Even if we expect well harmonized and synchronized development between agriculture and industries, sometimes agricultural development fails to keep pace with the rapid change in dietary life. I want to have some comments or opinions from Professor Hara on this matter.

### Hara:

Two weeks ago I was in Bangkok and had a discussion with one of the advisors to the prime minister. He told me that the young generation in Thailand had already become very nervous about food safety. The

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feelings of the young generation are rapidly changing even in developing countries. The young generation in Japan, including my daughter and son, are very conscious of food safety. This phenomenon may become more common in developing countries. This will give us some foundation for reconsidering the roles of agriculture in this century. My feeling might be a bit biased, but I was very surprised to learn that young Thai people are very nervous about food safety.

## Kainuma

Dr. Hara, you mentioned that the most important thing in the future will be the synthesis of natural science. I absolutely agree with that. But the difficulty will be finding a way to do this. It will even be very difficult to correlate different natural scientists, for example, conventional breeders with genome-based molecular biologists. Could you make a comment on the contributions of social scientists to natural science?

#### Hara:

One important thing is to change the system of promoting scientists in research institutions. So far, many social scientists and natural scientists belong to Japanese academic societies separately. If some young scholars would like to be promoted to higher positions, the assessment by each academic site is very important. This is OK, but we should add other systems. Japanese institutions should provide some incentives to the young scholars to conduct interdisciplinary research.

Therefore, some reform is needed. Moreover, I spent one year as a visiting professor at the Center for Southeast Asian Studies at Kyoto University. This center is one of the unique institutions that have succeeded in interdisciplinary studies between social scientists and natural scientists. Professor Tanaka could tell us the secret of his success.

### Tanaka:

I have been asked by Professor Hara to speak about a secret, but there is no secret. Institutionally the center consists of natural scientists, social scientists and humanity scholars. Still, it is very difficult to create a real collaboration; synthesis is very difficult.

But I think joint studies or collaborations in on-site locations are a very important way to steer them into other directions in their disciplines. All the scientists and researchers are very conscious about their own disciplines, they have to promote their disciplines in society, but if you go to the field together with other scientists in other fields, it is a very good occasion to change the scope and change the methodologies. I think all the institutions should pay more attention to provide occasions to work together. Even though many projects are carried out in many fields, every science researcher or expert is dispatched for his own objective in his field. If the social scientists are sent to the locations, they are requested to make their reports from the viewpoint of social science. If the project is carried out in such ways, there will not be any synthesis. We have to ask every scientist to try to achieve the real synthesis in his own activities. For example, social scientists should try to change themselves into other types of scientists. That is the point.

## **Oladele Idowu (JIRCAS Fellow):**

I would like to ask, what is the position of the CGIAR with respect to extension services? If you look at some of the centers – I am very familiar with IEAT in Nigeria – extension services are just appendages. They are not in the core service area of the centers. Adaptive research is not a full-blown extension service. Perhaps literature has been able to prove that returns to investment in extension are higher than returns to investment in agricultural research. If you consider the position of the CGIAR in the transfer of knowledge in poverty reduction and the research products as public goods, these are issues that border essentially on the transfer of the end product to the poor for the transformation of their lives and well being. In the new structure and shape for CGIAR, what will be the future of extension services?

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#### **Reifschneider:**

The reforms that we saw in the last 15 years that affected most of the developing countries often greatly affected research as well as extension services that were provided by public sectors with different degrees of efficiency and efficacy. I think that is generally accepted, although at the time the option that was taken was a general dismantling of some of the services. I do not think that, in general, we have been able to put together something that would substitute what we had before or something that delivers better services.

Specifically in relation to the CGIAR, our centers are not extension-service-oriented. These are researchfor-development centers that basically have to work with the national counterparts in terms of research, and through the national counterparts, with the local regional extension agencies, whether public or private. I think we are very much interested in seeing these linkages increasing, and as I mentioned, some of the specific programs that are being launched, including the one being submitted by FARA, the Forum for Agriculture Research in Africa, deal with these linkages between the different elements of the research for development chain. But this is not for the centers of the CGIAR. There is no comparative advantage for the centers. It is not our core business to be directly involved with extension services.

#### **Doppler (Hohenheim University, Germany):**

One is saying that we need higher productivity and the other is saying that we need higher quality of life. My question goes to Mr. Reifschneider about the future policy and strategy of the CGIAR system. If I look back at the end of the 70s and the beginning of the 80s, the international centers started to include more socioeconomic aspects. Even anthropologists were recruited there. I got the impression at that time that they would like to follow the philosophy of Mr. Hara. But after that period, maybe because interdisciplinary concepts could not be implemented the way one had in mind, or for whatever reason, it was obvious that when the funds were scarce those staff were removed from the centers in general. Natural scientists went back to the centers again, even those restricted to certain areas. What will be the future perspective if one agrees that Mr. Hara is on the right side? Basically you agreed, but you said, "Let's look for the natural science," and there were some differences. What will be the future? Will the CGIAR center go back to include this in their centers? Or is this an area where you are going for collaboration? If so, what kind of collaboration?

### **Reifschneider:**

Let me try to address some of the points. I think that when we are discussing higher productivity we are thinking about higher quality of life at the end of the day. As one of the elements to support higher quality of life, I do not see any differences in these two. One is perhaps one of the ways to try to achieve the overall objective of better well being for all.

In relation to the social sciences, you are correct. There has been a general decline in the amount of social sciences in the system, and to some extent that reflects some of the specific support coming from donors to different programs and the fact that the funding system is to a large extent guided by donor's interest and donor's support. But at the same time, I would also like to say that the activities that we have seen in relation to participatory research – not only in relation to breeding, but breeding perhaps is one of the very good examples – highlight how much of the social science component was absorbed as part of what you call the natural science component. I think this is good news. Is it enough? No, it is not enough. But it is good news.

The second point, the future. I do see, as I mentioned several times, the new networks, the new partnerships, as one of the key modalities for us to bring the expertise that is available in this country and so many other countries both north and south together with the expertise available via the CGIAR centers in specific areas. In addition to these specific networks, we also have some new programmatic elements that provide us with additional opportunities. We are just beginning to explore that. I do feel that some of the very

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# Noguchi:

FAO forecasts that, by the year 2025, 65% of the world population will live in cities. Latin America has the highest portion of city dwellers at present, but the rate of urban growth is highest in Africa. As a result, the proportion of people living in urban centers in Africa is expected to increase from less than 1 in 4 in 1970 to more than half by the year 2025.

What does this forecast imply? How can we hold the rural populations in their place? I feel that we should have more sophisticated strategies to give them more incentives to keep them cultivating their lands.