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INNOVATIONS TO ACHIEVE THE MILLENNIUM DEVELOPMENT GOALS
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ON BEHALF OF THE FUTURE HARVEST CENTERS

CGIAR Chairman, Ian Johnson, Center Directors Committee Chairman, Kanayo Nwanze, Colleagues, Ladies and Gentlemen:

It gives me great pleasure to present this overview of how we in the 15 Future Harvest Centers of the CGIAR are joining the global endeavor to achieve the United Nations Millennium Development Goals. My colleague Ed Rege and I will share with you the approaches now being taken and planned in making our contribution

You will recall that at the United Nations Millennium Summit in September 2000, world leaders made the commitment to halve by 2015 the proportion of world population living in poverty. In particular, they pledged in the UN Millennium Declaration to achieve eight Millennium Development Goals that set targets for progress in poverty reduction, education, gender equality, health, the fight against AIDS, and environment sustainability.

For the work of the Future Harvest Centers, a focus on the MDGs is to address new issues, adopt new paradigms that organize our work and the way we do it, and forge new partnerships for progress and change. Our talk will address each of these three themes.

At the heart of achieving the goals is better understanding poverty, its causes and occurrence so as to create solutions. The Goals raise questions as to how the CGIAR System and the Centers, can address needs such as empowerment, people's health, creating new wealth for the poor and sustaining the environment? These are not questions that sound like 'business as usual' for us.

From the Centers perspective, we are asking ourselves how can our programs focus on poverty? A starting point has been to realign the research to address the MDG as the specific vehicle for defining poverty eradication indicators and targets. Centers have created research units that monitor the impact of the work, and carry out priority setting studies. An example of changes is a greater focus on human health and agriculture, natural resource management and policy research, and greater attention to rural wealth creation. As a result of targeting the MDGs, the profile of partnerships is raised and new consortiums are forming.

The Centers are making increased use of spatial mapping in commodity and ecosystem approaches and then re-allocating resources regionally and thematically.

In a recently completed CGAIR research on poverty mapping in Bangladesh, carried out in close collaboration with the national statistics agency, it was identified that some

pockets of persistent and high level of poverty were closely associated with poor infrastructure and primary education. This result helps to understand the occurrence of poverty and the factors that may explain its root causes and better target interventions to change the outlook.

Another example of the realignments is identifying areas and populations at greatest risk from climate change and working with them to develop alternative options and new coping strategies. One project on rain fed small holder maize and livestock systems predicts enormous variability in the impacts of climate change from one area to another. Maize yields in vulnerable regions may drop by as much as one ton per hectare, a scenario catastrophic for subsistence farmers and solutions will be targeted to this farmer in this 'niche'.

Using their global databases on the outlook for food and the environment, the Centers have also modeled progress towards the MDGs. For example, we have used the IMPACT-WATER model to project childhood malnutrition under 'business as usual' and under a model where the MDG goals will be met globally. The results show that Latin America, West Asia, North Africa and China are likely to meet the MDGs even under current investment strategies. However, Sub Saharan Africa and South Asia are unlikely to meet the goals even under favorable conditions

To address the health and nutrition Goals, partnerships between agriculture-health-education sectors and rural communities and the private sector are formed to deliver vitamin A-rich sweet potatoes to end childhood blindness in Africa. We are currently working in Ethiopia, Uganda, Kenya, Tanzania, Mozambique, South Africa, Ghana and estimate that 50 million children could eventually be reached.

HIV/AIDS has hit agriculture, fishing and other rural communities hard. It brings new poverty. Centers are studying the impact of HIV/AIDS on agriculture and rural communities and developing labour-saving agricultural technologies for affected families. We are also working on nutritional interventions– biofortification of crops, removal of mycotoxins in food as improved nutrition can stop or at least slow the development of opportunistic diseases associated with HIV/AIDS. These examples show that the global commitment to the Millennium Development Goals is having a profound effect on the work of the Centers.

I want to turn now to how the new integrated focus on these issues are being translated into new development and research paradigms.

Producing high-value products to create wealth for the poor, ensuring that the poor have access to modern technology and the products of research, making commodity production more market oriented and at the same time more environmentally sustainable, and changing from 'technology transfer' to 'action research', 'learning alliances' and 'creative outreach'.

Globalization and an increased market focus has meant that the Centers pay more attention to how high value commodities can help rural producers earn more from improved production and processing of high-value crops such as livestock, fish, vegetables and fruit crops. New uses of 'old' crops are showing interesting potential. For example, sorghum varieties are been developed for high sugar content for small-scale ethanol extraction industries that can be profitable and create rural employment in South

Asia. Also, neglected crops are more commonly being included in the agenda of Centers,

Women forest traders in Cameroon have increased their incomes by 55% through an innovative participatory project that involved market research that persuaded the women to begin trading in wild fruits and leaves – such as the gnetum, a forest leafy vegetable, in this picture.

One of the most critical paradigm shifts is that of empowering people simultaneously in the marketplace and in environmental management. Centers are working on projects such as this one in Kenya on enabling rural innovation. Rural communities are increasingly realizing that they must produce what they can market rather than marketing what they produce. As such, farmers are empowered to do their own analysis of market chains, while avoiding degradation of land and the water catchments.

In Myanmar, the site-specific crop nutrient management technologies developed by the Future Harvest Centre scientists are reaching thousands of poor rice farmers. In Laos, Northeast Vietnam and North Thailand, scientists of a number of Centers work together to develop alternative farming systems and livelihood strategies to reduce slash-burn.

This brings me to another CGIAR effort that has already created significant impact based on understanding the critical linkages between natural resources and livelihoods. In the lower Mekong Delta in Vietnam, starting in the early 90s, government responded to the increasing demand for rice by expanding and intensifying rice production, as shown in green in the picture. Sluices were built to prevent salinity intrusion to favor rice production at the expense of shrimp farming and fisheries as shown in blue, which were more lucrative. Conflicts arose over the large scale water management regimes and farmers' livelihoods. Vietnamese researchers, policy makers and farmers organizations working with Future Harvest Centers used GIS and hydraulic models, developed new water management and land use options that immediately began changing policy and farming practice, as shown by the changes in land use evident in this picture.

Most rural livelihoods are also linked ultimately to access to the right crops to grow and here genebanks are the foundation. The Centers helped their partners in Central Asia Caucasus region create a Plant Genetic Resources Network in 1999, as part of the actions to help the region make its current major economic transition.

And now I would like to hand over to my colleague Ed Rege to tell you about our new partnerships and make some concluding remarks.

Mr. Chairman, colleagues, ladies and gentlemen

The first segment of this presentation by Ren Wang will have made it clear that a focus by Future Harvest Centers on the MDGs is making us address *new issues*, and that *new paradigms* are coming into play. This last segment aims to illustrate how and what *new partnerships and institutional arrangements* are being applied, not only to help Centers focus on the MDGs, but also to measure resulting impacts against MDG indicators.

For a start, to ensure that the MDGS are mainstreamed into their R& D agenda, Centers are playing an active role in the UN project on the MDGs. In this and other work, Centers

are working on activities in which partners are in the driving seat and are configuring projects and programs that go beyond food.

Centers are also helping to develop new ways to get existing and new innovations to be up-scaled and out-scaled to reach millions more and are working particularly to get young people involved.

Later this week, on Wednesday, we will be hearing more about the UN MDG Project led by Professor Jeffrey Sachs when the preliminary report of the Project will be discussed. To date, Directors General of four Centers have been involved in 3 of the 10 Task Forces of the Project. The MDG Technical Support Center of the Project was established in Nairobi in June this year (2004), hosted by the Centers. The Technical Support Center is proposed to become the MDG Science and Policy Center and will facilitate implementation of activities such as capacity building, scaling up solutions, distilling best practice for wider use and advocacy to create visibility and attention to the MDGS and their attainment.

Ladies and gentlemen, Centers are acting more collectively as a System and in forging global partnerships to facilitate work at the national level. This is exemplified by the on-going involvement of Centers in the FARA-led development of the Sub Saharan Africa – Challenge Program (SSA-CP). Indeed, the SSA-CP process, in addition to being a good example of collective action, manifests other elements of ‘doing business differently’. The evolving Program has natural resources – and not the traditional single commodity approach – as an underpinning theme in which sustainable livelihoods are a key focus. In addition, action research and institutional learning at pilot sites are mainstreamed into the implementation framework. Centers are also working with CONDESAN in the Andes to create a platform of shared services that generate tools and technologies for natural resource management to contribute to sustainable systems.

Mr. Chairman, recently, Future Harvest Centers have been enlisted by NEPAD – the New Partnership for Africa’s Development of the African Union – to facilitate, in collaboration with national programs and advanced research institutions, the development of a shared biosciences platform for Africa – now known as the Biosciences Eastern and Central Africa – to help address Africa’s priority agriculture and allied problems.

The development of this ‘network of centers of excellence’ is an important institutional innovation in which Centers are playing a facilitating-cum-brokering role and providing technical backstopping while ensuring that ownership and governance stays with NARS.

In addition to providing hard infrastructure, the initiative is aiming to assist NARS in capacity development on the soft but critical side of biosciences applications – i.e. intellectual property, biosafety and related policies. This initiative is already attracting substantial regional and global interests.

Our partnerships are broadening and we find that work directed at poverty, hunger, livelihoods and the environment is serving other goals such as education, health and gender empowerment. Ren, in the first segment of this presentation, has mentioned some examples in health and gender empowerment domains. Increased production of foods, in quantity and quality, e.g., in smallholder dairying systems – supports education in at least two ways: one is through extra cash to provide school fees; and the other is

through improved cognitive abilities resulting from better nutrition at critical stages of the development of children.

New technologies and products also create new partnerships such as we are finding in the African rice revolution. Here, new rices are raising women's incomes as has been shown in a recent study. In 7 West African countries, out of 200 new rice varieties being used, one third is from Future Harvest Centers. Rice farmers from these countries made US\$360 million per year in producer surpluses and also helped the region save on rice imports. The delivery of the new rices is happening through new partnerships that are tailoring the New Rice for Africa (NERICA) – and other rices for the continent.

Participatory approaches and networks are being applied to scale them up and out in West Africa and more recently in East Africa. Our work suggests that new post-NERICA rices for the lowlands offer even more potential for wider adoption and impact.

Ladies and gentlemen, in a similar approach to the concerted efforts made in Central Asia to rebuild genebanks in the post cold-war period (already described by my colleague Ren Wang), Future Harvest Centers have been involved in an R & D coalition of national, regional and global stakeholders to help restore Afghani agriculture. In this initiative, beyond involvement in seed systems and other natural resource management activities, the consortium has taken innovative approaches in packaging and delivering information through radio and other media to ensure that it has the greatest 'reach' and impact.

Future Harvest Centers are also facilitating public-private partnerships in ways that ensure that products of public goods research remain available for the poor. A good example has been the distribution of improved tilapia fish of the 'GIFT' strain, which is now the base of 70% of Philippine and 46% of Thailand tilapia. The delivery of this product has recently been facilitated by intellectual property advice from the Future Harvest Central Advisory Service to fully ensure that the public-private partnership arrangements are truly pro-poor.

Mr. Chairman, reducing dependence of rice farmers in Asia on certain chemicals remains a challenge. A concerted research-based campaign involving Future Harvest Centers and other stakeholders with active involvement of the media and local drama groups in Vietnam focused on net profits and health benefits of reduced chemical use. This project has persuaded 2 million rice growing households in the Mekong Delta to cut back chemical applications without losing crop yields – with obvious implications for overall farm profits and environmental health. The uptake of the practice is spreading into other countries of the Mekong Delta.

Dear colleagues, Centers have recognized the critical role of the youth – who are tomorrow's producers, consumers and policy-makers – in information and knowledge dissemination and uptake. A good example is a project in Colombia and Central America which seeks, through research, to involve the youth – and, through them, their communities – in natural resource management so that they may have tools to help them create opportunities for future development. This project involves a large range of partners, including rural schools, education departments and related establishments – many of which are non-traditional partners of the Centers.

Mr. Chairman, I would like to conclude: The Millennium Development Goals have created the space to act. Centers are using the MDGs as a

framework, not only for making choices and configuring partnerships, teams and approaches, but also for defining targets and indicators against which success is measured.

The re-engineering within the Future Harvest network of Centers, now well underway, involves new and open processes, creation of synergies through working with new and a larger variety of partners, the development of a broader agenda that looks beyond just food production, and an increasing number of initiatives that involve – of necessity – multiple Centers.

There is increasing recognition throughout the globe of the importance and relevance of the 'sustainable livelihoods paradigm'. In 1970, the Nobel Prize for Peace was given for 'Food Production', this year (2004), it has been awarded for 'Environmental Protection'. The 'sustainable livelihoods paradigm' implicitly connotes that addressing food production needs to be done in the right context and that livelihoods are not just about food.

We, in the Future harvest Centers, recognize that we are only modest players trying to address a complex problem that increasingly involves players whose capacities are growing. This is being taken into account as we redesign ourselves and how and with whom we need to work. An important element of this new architecture is due realization that what is important is the final outcome and how it relates to the livelihoods of the needy people whose plight is our mandate to try and address; and that it is not who has done it, but that it has been done, and done well!

Finally, Mr. Chairman, in putting together a System-wide presentation like this, significant collaboration is required. Ren Wang and I would like to thank all who – in small and very big ways – have made it possible.