

Outcome of GCARD and Role of ARI

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ABSTRACT

The Global Conference on Agricultural Research for Development (GCARD) identified the changes required in research and innovation systems so that millions of hitherto unreached small, resource-poor farmers can benefit from environmentally-sustainable productivity growth and increase their food security and incomes to tackle the root causes of rural poverty. The transformation of agricultural research for development (AR4D) requires attention to both: (i) collective research and knowledge sharing actions on key outcome-focused themes and (ii) transformation and strengthening of agricultural innovation systems of developing countries.

The GCARD had prepared a roadmap, the Montpellier Road Map, which aims to transform Agricultural Research and Innovation Systems globally, from their current fragmented status to a more cohesive system. Its goal is that agricultural knowledge, science and technology should play their fullest possible role in abolishing poverty and hunger from the developing world and it builds on the following nine pillars identified for good practice:

1. Inclusively define key research priorities and take forward large-scale research-for-development partnerships, driven by national and regional sustainable development objectives and recognizing the particular needs of resource-poor farmers;
2. Recognize that innovation is a continually evolving process that must be shaped by science and society to anticipate future needs;
3. Effectively coordinate operational linkages with and among donors and development partners to maximize development impacts;
4. Directly involves producers, users and consumers in controlling and conduction research and fostering the rapid sharing of learning;
5. Recognize the complex innovation pathways in outcome-based research and invest in equitable partnership among all stakeholders with shared objectives, mutual accountability and clear understanding of interests, roles and responsibilities;
6. Actively achieve increased investment in human, institutional and financial resources;
7. Develop required institutional capacities for generation and use of scientific and technical knowledge in agricultural development;
8. Stimulate multi stakeholder and multispectral engagement to create enabling environments for required better impact; and
9. Demonstrative value and gain recognition by society through effective monitoring, evaluation and reporting.

The Global Forum on Agricultural Research (GFAR), a multi-stakeholder catalyst for: (i) advocacy for change; (ii) institutions for the future; (iii) inter-regional learning; and (iv) knowledge for all, as endorsed by the G8 Summit 2009, working through the Regional Fora viz. APAARI, NARS and other constituent sectors will strengthen the above nine pillars and build on them the new AR4D worldwide.

Outcome of GCARD and Role of ARI :Transforming Agricultural Research for Development

Ram Badan Singh



The Global Forum on Agricultural Research
Secretariat

GCARD: The Context and Challenges

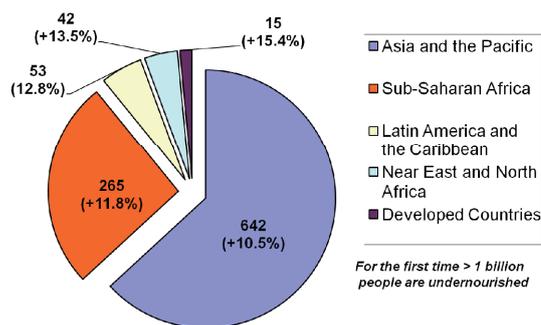
- Over one billion, one in six of the world's population go hungry "a moral outrage that must be abolished"
- 1.4 billion live in extreme poverty
- Livelihood of 66 to 75% of the poor depends on agriculture, and agriculture is the best bet to liberate them from deprivation
- Public Sector Agricultural research investment has declined around the world, the incubation period is 30 – 50 years for tangible large scale impact, yet returns are clear
- Resource Poor, Smallholder farmers and women are last to benefit from research

Contd...

GCARD: The Context and Challenges

- Over 2 billion more people by 2050, 30% more food required, 70% of people will be in cities; food demands changing
- The poor are increasingly marginalised; South Asia home to 50% of world's undernourished children; poverty is already concentrated in Sub-Saharan Africa and South Asia
- Increasing climate vulnerability and market volatility
- Fast changing land use and diminishing soil, water and biodiversity resource
- Most developing countries off-track meeting the MDGs, especially MDG1 – halving hunger and poverty by 2015

More than 60% of hungry are in Asia and Pacific



Source: FAO, 2009

Asia-Pacific Agriculture Roles

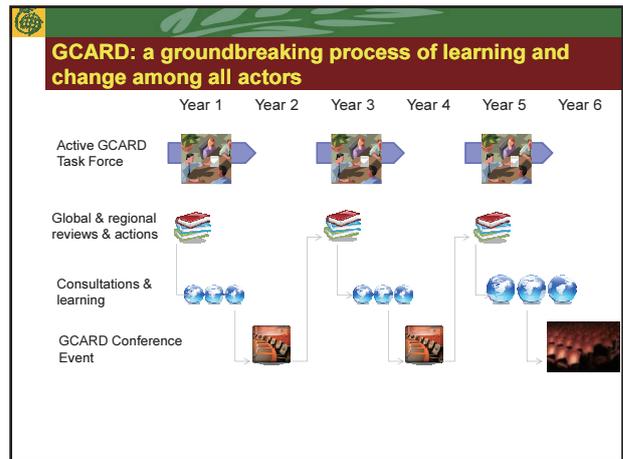
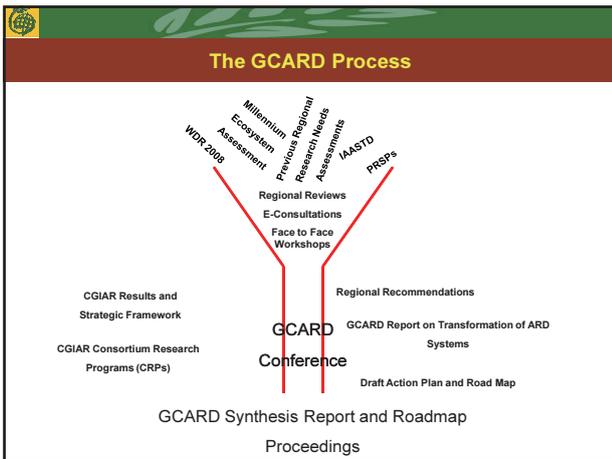
- Major global supplier of food and agricultural commodities (with 74% of world's agri population)
- Feed nearly 60% of world's population, including 66% of world's hungry and poor from only 38% of world's arable land
- Improve livelihoods of over 80% of world's smallholders, and of 90% of world's fisher folks and aquaculturists – the two groups comprising the bulk of the poor
- Bridge the income divides between farmers and non-farmers : from 1:2 40 years ago to 1:4 now.

Asia-Pacific has potential for increasing agricultural productivity

Annual total factor productivity growth, 1992-2003

Region	%
East/SE Asia	2.7
South Asia	1.0
East Africa	0.4
West Africa	1.6
Southern Africa	1.3
Latin America	2.7
North Africa & West Asia	1.4
All regions	2.1

Source: von Braun et al. 2008.



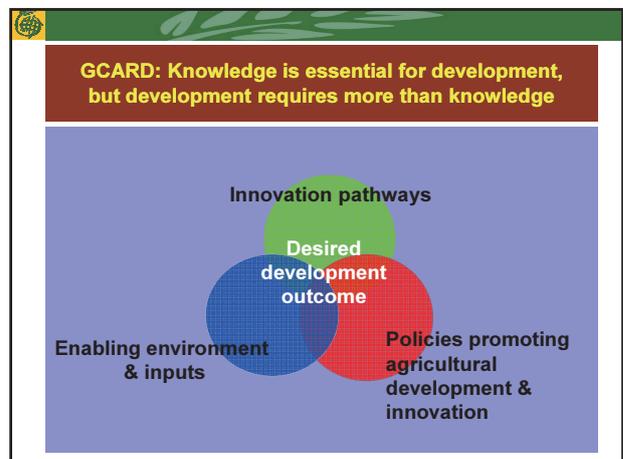
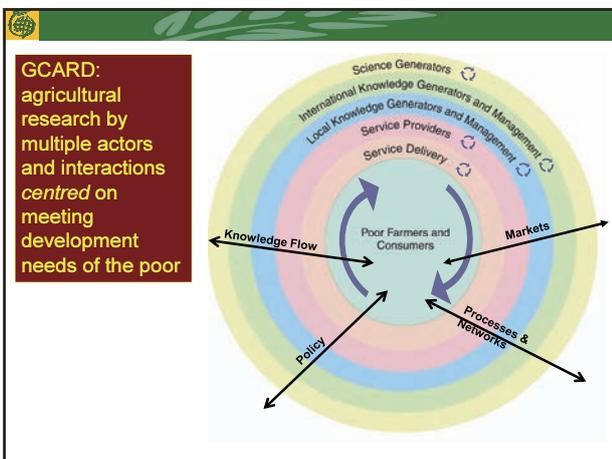
GCARD – Conference with a Difference

- ❑ Truly a global process, regional actions and national ownership emphasised
- ❑ Collective action, but differentiated accountability while maintaining national sovereignty
- ❑ Over 800 participants from all sectors, oversubscribed by 1000
- ❑ Participants rated the Conference as highly successful

GCARD – AR4D seeks radical change to :

- Increase food security
- Abolish rural poverty
- Meet societal needs
- Sustainably manage environmental resources

Current agricultural research systems need to be more inclusive, coherent and need new capacities to deliver to the required scale of development impacts



Two interlinked approaches:

- Collective research and knowledge sharing actions on key outcome-focused themes
- Transformation and strengthening of agricultural innovation systems of economically developing countries

Common Priorities Across Regions

- Sustainable intensification through increased productivity and production of major food crops
- Diversification of agricultural systems – livestock, fisheries, agroforestry
- Comprehensive value chain approach, development of markets, quality & safety
- Nutritional and environmental health
- Integrated forestry systems
- Effective natural resource management (land, water biodiversity)
- Climate change mitigation & adaptation

Common Priorities Across Regions (Contd...)

- Policy research on trade, markets and Intellectual property rights
- Trans-boundary pests and diseases
- Systems approach to livelihoods of resource-poor smallholders, especially women farmers
- Resilient agriculture in resource-poor or marginal areas through new science & ICTs
- Capacity development, non-agricultural food security, income enhancement
- Impact of changing economies, energy & population on changing diets & urban agriculture

These are congruent with priorities of FAO, CGIAR etc.

Pillars of AR4D Good Practices

1. Inclusively define key research priorities and take forward large-scale research-for-development partnerships, driven by national, regional and global sustainable development objectives and recognizing the particular needs of resource-poor farmers;
2. Recognize that innovation is a continually evolving process that must be shaped by science and society to anticipate future needs;
3. Effectively coordinate operational linkages with and among donors and development partners to maximize development impacts;
4. Directly involve producers, users and consumers in controlling and conducting research and fostering the rapid sharing of learning;

Pillars of AR4D Good Practices (Contd...)

5. Recognize the multiplicity and complexity of innovation pathways in outcome-based research and invest in equitable partnership among all stakeholders with shared objectives, mutual accountability and clear understanding of interests, roles and responsibilities;
6. Actively achieve increased investment in human, institutional and financial resources;
7. Develop required institutional capacities for generation and use of scientific and technical knowledge in agricultural development;
8. Stimulate multistakeholder and multisectoral engagement to create enabling environments for required better impact; and
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Collective research actions towards development outcomes

Outcome based planning of collective actions requires common objectives, defined by national development policies & frameworks:

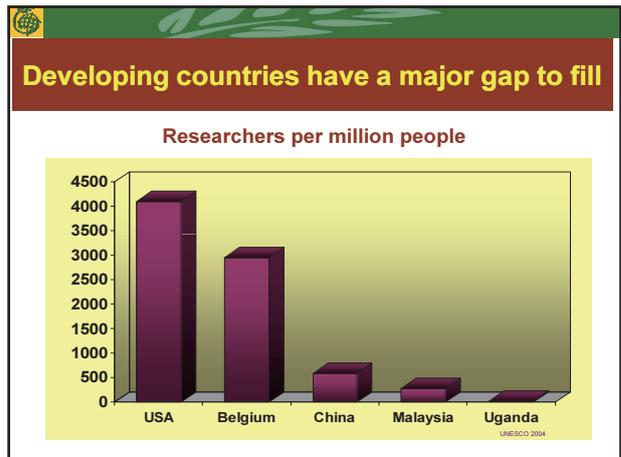
- CGIAR-SRF
- FAO-CFS & national agricultural frameworks
- Regional frameworks eg APAARI
- GFAR-Global Partnership Programs – partnerships for action

Broad generic congruence between all, but specifics are driven by sovereign national priorities and commitments

- Recognize that all themes involve trade-offs and synergies
- Need to revisit 'fit' of research in national development frameworks

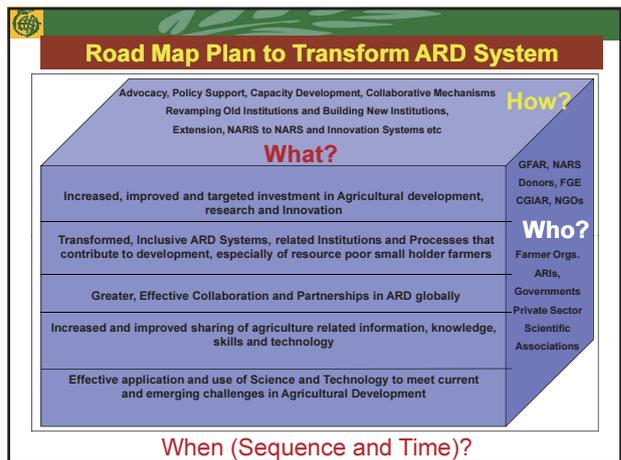
Reorientation of AR4D

- **Clients:** small farm holders, poor producers, value chain actors, poor consumers, women in agriculture
- **Primary production level:**
 1. Ecosystems framework – diversification (livestock, horticulture, fishery, agro-forestry) but a holistic perspective
 2. Integrated natural resource management – especially land/Soil and water in arid and semi-arid regions
 3. Climate change: adaptation and mitigation
- **Holistic:** food supply chain (input sector → primary production → post-harvest/processing/marketing → markets)
- **Cost cutting:** knowledge based, socio-economic and policy research, capacity building, participatory



Changing the rules

- **'Publish or perish'** is not the only relevant value system
- **Adaptive science is not a lesser science; agriculture embeds science in society & environment**
- **Better integrate education, research and extension and recognize the new architecture internationally (eg Fast Growing Economies) and nationally (eg private sector)**
- **Reassess value & rewards placed on different forms and types of innovation that more directly benefit the poor**
- **Rethink research questions through the eyes of a small farmer**
- **Examine value of research to a country's development and the returns from different forms of research investment**



Business Unusual

Aggressive advocacy for increased AR4D funding is needed

- Government to provide at least 1% of total agricultural GDP for AR4D
- Agriculture research investments to be **doubled**
- Increased capital investment through public-private-partnership
- **South Asia** in particular should receive immediate attention by the International community

Shaping the new CGIAR

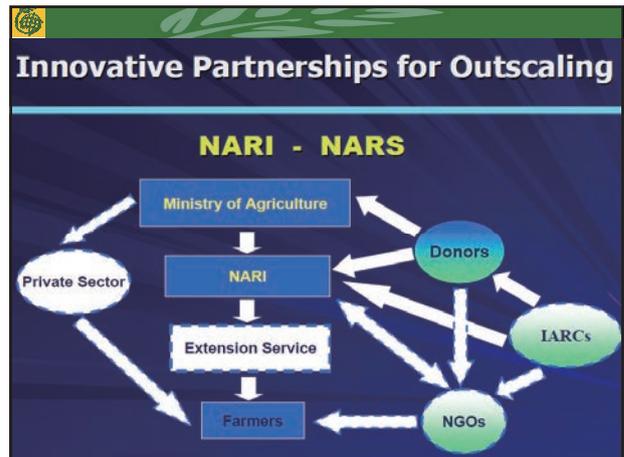
Need to address fit with 'the 96%':

- Role of CRPs in relation to national and regional policies, programmes & commitments – who owns the outcomes?
- CGIAR's role and positioning and expected partnership behaviour vis-à-vis other national, regional & international actors,
- Clarity on what is meant by shared responsibilities for outcomes
- Linkage of CRPs to delivering SRF
- How CGIAR incorporated into GCARD Roadmap
- How SRF can foster change beyond the CGIAR?
- Regional Fora engagement of innovation partners in national systems around key themes

GFAR – the multistakeholder catalyst for:

- ❑ **Advocacy for change:** Strengthen the voice and demand of society for agricultural innovation to address key development issues
- ❑ **Institutions for the Future:** Transform agricultural research, extension and education institutions and systems to better meet development needs
- ❑ **Inter-regional learning:** Equitable partnerships catalysing rapid and efficient change through collective actions
- ❑ **Knowledge for All:** Empower change by overcoming the barriers to knowledge flow and use

G8 Statement on Food Security 2009:
 “We support the fundamental reform processes underway in the global agricultural research system through the Global Forum on Agricultural Research”



Breaking down the walls

- Outcome-centred, not technology-centred thinking
- Innovative knowledge access & transformation systems
- Stakeholders learning & innovating together, managing benefits & risks
- Institutional reorientation & changed attitudes/values
- Convergence of policies and resources

What is required for GFAR to meet its expectations?

- Strengthening of all component parts – RF, stakeholder groups
- Stable and longer term core investment in programme of work – shift from current part-projectized basis
- Advance commitment required to the GCARD conference costs
- More accountability in GFAR stakeholders
- Ownership by all programmes and sectors concerned, linking and learning from actions **catalysed** by GFAR
- Greater **technical** capacity at Secretariat and engagement of stakeholders to themselves deliver the GFAR agenda

Over to You

- You (Japan, other developed countries, BRICS) have tremendous capability to transform AR4D around the world
- GFAR provides the open, inclusive mechanism to enable this transformation
- Together we can bring real change... and reach the unreached

Thank You

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QUESTION and ANSWER

Masaru Iwanaga(Chair): Thank you very much, Dr. R.B. Singh, indeed. He presented a very comprehensive way of how the world is changing and especially of the paradigm shift which changed the rules -- that it is now more demand driven innovations rather than supply side technologies; he also emphasized the importance of our partnership. At the end, he challenged us Japanese scientists and organizations by passing over to us what Japan can contribute through the partnership. So I'd like to take a few minutes to receive questions for Dr. R.B. Singh. Any questions? If not, I'd like to take over as Chair.

You had an opportunity to visit Japan and be introduced to Japanese organizations. From your point of view, being currently at GFAR, what is a kind of engagement you'd like to see? Towards the end, through your slides, you put it in a very diplomatic and polite way. But it still seems a bit big and as a crop scientist with international statute and also experience much goes beyond just crop science. What would you like to see from the Japanese side through GFAR or directly towards our clients?

Ram Badan Singh: Mr. Chairman, I can only say that Japan needs to do plenty like what it has been doing in the past despite the economic difficulties and so on and so forth, and it will absolutely be on the right track. However, recognizing the new developments, as a matter of fact, in Asia Pacific region if you see, the number of hungry and poor has increased. We need a differentiated approach. I know the Japanese government is working in places like Cambodia, in Laos, in India also. When JIRCAS presence is there, I have seen something working. I think that the need today is for the large number of technologies that we have seen, to undergo piloting, then scaling-up. The gap between that is demonstrated productivity. The gap between that and actually realized productivity is very often unmet because of three major reasons. And Japanese influence, can particularly work on changing human capacity in the sense, to really orient people in their attitude and thinking process as it is dependent more on ground interaction and effective collaboration. Also to influence the governments of these developing countries that they cannot keep on cutting your agricultural investment, and in most of this countries where the number of hungry and poor where the rural populations are swelling with the kind of unethical development. Obviously it's probably the overall morality and transparent involvement to fight hunger and poverty. If this message the Japanese government can take in a strong way, do the diplomacy at high level, make it sure that it sinks in the system, also work at the ground level where the hungry and poor are, ensure a support system, natural resource management, biodiversity conservation, and then transfer of technology linking the poor with the market. They are four, five major things. If this is done, then the one to four ratio of the farmers who are also in misery, hungry and poor, will be reduced. We must reduce this divide, or you are living in two different worlds – hungry, poor, deprived, destitute, and those who are well off. This guy, unless it is you, you cannot have a peaceful life. Japan is a country of peace which I think, possibly we have to see, if this peace is restored to the majority of the people who are striving – the tribes, the people who go out and in some uncivilized way of wars are not because of their break line there because early times there are compulsive desires and those people to really fight against the industry that is met with them. So I think this is where your influence is not only doing on the ground level, a few nuts and bolts, but fixing the overall scenario of thinking changing, taking the leadership in a couple of places, pile it up and scale up, scale out, and possibly Japan can be our leader and we will look forward to that cooperation.

Masaru Iwanaga: Thank you very much for your very encouraging comments too. Thank you very much.