The Asia Panel got off to a slow start but, after various up-country and other travels and returns to duty, a rich set of commentaries was logged. Any attempt to synthesize these into a coherent overview is bound not to do justice to the thinking that went into the offerings but such is the endeavor here. One overriding consideration is that the CGIAR surely has a key role to play in achievement of the ambitious MDGs. To get the support it will need to play this role, it will need to do a better job of documenting its achievements (especially in MDG terms) persuasively.

This brief account of the Asia Panel deliberations is presented in a synthetic form that depersonalizes (to comprehensive anonymity) individual contributions and attempts to represent a sort of consensus of what members of the Panel had to say. We had a brief attempt at the end to try to quantify the Panel priorities in a pseudo-weighted form but the number of responses by our busy members was insufficient to make this a really viable enterprise, although an indicative summary is presented at the end of this report. Your Moderator does wish to record his appreciation to those few Panelists who did put themselves through this chore.

Key Priorities for the CGIAR in Essence: The Big Picture from Asian Perspectives

[Please note that these have been re-ordered in light of the voting responses at Wk 3 end]

1. Refining knowledge of poverty and energizing a genuine poverty focus in CGIAR research, with inevitably giving greater attention to less-favored areas (LFAs);
And, advancing the poverty agenda in global agricultural research with the CGIAR providing leadership, model behavior and technical assistance through active partnerships.

2. Clarifying the environmental research agenda, and resolving the role of the CGIAR in research on natural resource management.

3. Building capacity in its partners (NARIs, regional research bodies, NGOs, and farmer organizations) in a prioritized and strategic manner, with better dissemination of assessed impacts and achievements in this and other regards.

4. Articulating better the public/private dimensions of agricultural research agendas;
And developing productive partnerships between CGIAR Centers and private entities for effective provision of public goods that contribute efficiently to reducing poverty.
The latter will involve new strategic alliances, non-duplicative effort in germplasm enhancement, greater explicit attention to post-harvest issues and deepened insight to the implications of risk in technology uptake.

1. Poverty

Not just because it was the first-mentioned of the themes suggested for the Consultation, poverty came to the fore in the Panel's prioritization efforts. The Asia Panel strongly agreed about the centrality of poverty reduction to the mission of the CGIAR. Panelists struggled with identifying how this centrality might best be translated into appropriately focused research programs of the CGIAR, and to get away from mere tokenism and rhetoric on the issue. But several questions and nuances were raised, not all of which have clear answers or seemingly ready implications for the CGIAR. In short, the top priority of the Asia Panel was to operationalize an explicit poverty focus for the CGIAR and a subtle second priority was to

identify how best the CGIAR can most effectively help to bring the national partners along in this regard.

Poverty has many dimensions, not only lack of income (low consumption), but also vulnerability, hunger and food insecurity, ill-health and malnutrition, ignorance, inequities, low status for women, pollution and degraded environments, lack of sustainability threatening the welfare of future generations, social exclusion from social and political affairs, lack of market power, etc. It means that the CGIAR should be looking for research priorities that may bear simultaneously on several dimensions of poverty. For instance, there are many opportunities to seek both improved consumption and improved health (e.g., reducing water pollution, decreasing the incidence of disease vectors, helping develop yield-increasing and labor-saving technologies). Improved production systems can bear importantly on the status of women, the reduction of vulnerability, etc.

Heterogeneity of poverty, including geographical aspects, means that it will be necessary, for any body such as the CGIAR that commits to poverty reduction, to construct typologies of categories of poor by causes and symptoms, and examine linkages between favored and marginal lands. This constitutes a major knowledge gap and research agenda in itself, and is one that is yet to be mainstreamed into Priorities and Strategy, notwithstanding several recent initiatives within the System. It is clear that LFAs must be a high priority for the CGIAR, given the under-emphasis of such poverty-stricken regions (such as much of the SAT in Asia and elsewhere, and many mountainous areas, for instance) by national systems. What does heterogeneity of poverty imply for the CGIAR's research strategy? (a) One implication is that access to local information is necessary both for diagnosis and for devising solutions. Gaining access to local information requires participation, hence the importance of the CGIAR's work on participatory approaches. Effective participation, in turn, requires organizations, hence the importance of producer and community organizations that can engage in participatory development initiatives, including participatory research and extension. Working with such organizations and civil society has indeed been important for the CGIAR both in research and for downstream use of research products. (b) Another implication is the importance of an integral approach to poverty reduction, where many different tools can be useful, for instance, off-farm incomes created by linkages with agriculture, and seeking higher value added in agriculture, employment creation in agriculture for labor-surplus households, etc. This requires looking at rural development instead of only agricultural (including forestry and fisheries) development. This, in itself, is a major redirection of the CGIAR's traditional research focus that should guide priority setting. (c) Heterogeneity of poverty will also typically call upon interdisciplinarity in problem solving. This is indeed one of the exceptional comparative advantages of the CGIAR, although the record is not wonderfully strong in the arenas of post-harvest and value adding. Greater ability to work across disciplines in joint undertakings needs to be actively pursued, especially if it is private-sector entities that have most of the competence and experience in such domains. Given the private-good nature of some such research products, the CGIAR will need a well crafted strategic position to be able to successfully support such endeavors.

There has been a long debate in the CGIAR as to whether research should focus on aggregate poverty or more specifically on rural poverty. While rural poverty remains the largest share of the total, poverty is becoming increasingly urbanized, and it would consequently be unwise to ignore urban poverty. The power of agricultural research in reducing urban and landless rural poverty through falling food prices is less than it was at the time of the Green Revolution due to increasing tradability of food and low international prices, driven largely by

OECD agricultural policies. The latter issues might well constitute a renewed CGIAR research thrust in themselves. Notwithstanding the uncertain resolution of such problems, a dynamic agriculture remains important for urban and landless poverty through aggregate growth and employment effects in economies where agriculture is a large sector. Thus the power of agricultural research for aggregate poverty reduction in poor economies remains important, even if the role of food prices has partially lost its edge. For the CGIAR, this means that agricultural research is indeed fundamental for smallholder and poor fisherfolk poverty reduction through direct adoption of new technologies, but that it also has important indirect poverty-reduction benefits for the urban and landless poor when technological advances are adopted in commercial agriculture. Seeking a considered balance between these two effects, especially when they imply different research priorities, should ideally be assessed in each particular national context.

Productivity

There was a diversity of views about possible priority themes. Some Panelists noted the continuing importance of feeding the dense populations of many parts of Asia (with its growing urbanization, loss of agricultural land, increased competition for water, etc,) while others lamented the rotting excess grain storages of India, for example. NRM, health-productivity linkages, information, local constraints due to market imperfections and institutional gaps all were raised in discussion. Biotechnology came in for much comment, and a clear majority saw aspects of such work (including GM but also other more conventional pursuits of varietal tolerance of droughts and pests) being an important feature of future high-priority CGIAR work in supporting national and regional endeavors. Partnerships with the private sector were noted by several Panelists as likely key to much such work. Controversial details aside, it is clear that the CGIAR System must take full advantage of the tools and techniques of modern biology if it is to be an effective research provider in meeting its broad mandate. It is clear that there is not much regional specificity in such a general quest, but there will be when it comes to dealing adequately with the tremendous diversity of agroecologies in Asia (and the Pacific).

Better engagement with the private sector is clearly a vital priority for a renewed CGIAR. But the potential agenda is incredibly broad. The CGIAR System has long been focused on the biggest part of the private sector in developing countries, namely the farming communities themselves. But there are other important private players for which the same focus has not prevailed. One impact part, also of long tradition, is the input supply industries, especially those dealing with fertilizers and agricultural chemicals, and those facilitating the provision of water. Indeed, the CGIAR has often come in for criticism by observers who perceive such linkages (even if usually quite indirect) to be other than socially desirable. Such critics are likely even more concerned about the future engagement with today's set of private entities that are playing a growing part in global agricultural research effort, namely the new private research providers.

These providers are diverse and in many cases not well understood. They range from major international life-science companies to a growing number of for-profit crop and animal breeding enterprises, and non-profit entities that are increasingly engaged in research of an international nature. Surely, what is key for the CGIAR is its freedom to operate and interact as it judges most appropriate.

The landscape of contemporary agricultural research is dotted with many features that have not always yet been adequately recognized in research policy decisions. Some of those touched on in this Asian Consultation included diversification, decentralization, indigenous technical knowledge, the future of small-scale farming, the uncertain role of hybrid rice outside

China, making the CGIAR more people-centered than science centered, insufficient attention to animal protein production relative to crop-based food energy and protein, and so on. None of these questions has an easy answer but consideration of all of them should be part of the new Science Council agenda.

3. Sustainability

Market failures and incentives relating to NRM, broadly defined, were firmly in the minds of the Asia Panel. Discussion was wide ranging, and included an (untested?) hypothesis about increasing particulate pollution compromising incidence of solar radiation that drives cropping. Low international agricultural prices due to protection and subsidies in the OECD countries not only increase poverty among developing-country producers but also reduce incentives to manage resources for sustainability. These market distortions thus have not only short-run poverty effects but also long-run sustainability consequences. In addition to this, there also exists a serious market failure in rewarding rural people for the provision of environmental services. This is particularly damaging in forestry, but it also applies to livestock and to crop farming systems. These observations stress the continuing importance of **policy and institutional research** (including work on the legal frameworks underpinning land, labor and forest and water resources) as a component of CGIAR priorities and of careful priority setting in social science research for improved NRM. This is becoming evident in some of the recent CGIAR ecoregional programs such as the Rice-Wheat Consortium operating in the Indonesia-Gangetic Plains.

Risk and the lack of risk coping instruments (insurance, flexible credit, mutual insurance across larger regions) were raised as an important cause of poverty and vulnerability and leads to a set of research priorities such as water management, drought resistance, crop diversification in resilient farming systems, and development of effective risk-coping mechanisms as substitutes to costly risk management (whereby farm households need to sacrifice expected income to reduce risk), which will be tricky to address when the time comes to identify research priorities.

NRM and knowledge of biophysical phenomena also came in for comment by the Asia Panel. Observation was made that new research tools, such as GIS, open important new perspectives and opportunity for knowledge advance. The resources needed to sustain research for a better understanding of the biophysical phenomena associated with lack of sustainability are enormous relative to CGIAR resources. For the CGIAR, this means that careful albeit difficult priority setting will be needed, with a clear division of labor among all the possible partners. Part of the difficulty of coming to ready generalizations about NRM research work is the strong **local** public goods elements of much such work, which contrasts with the rather wider such goods that have characterized much of the CGIAR track record.

4. Institutional sustainability of innovation systems

Several of the Asia Panel noted the continued weakness of many NARIs although these public entities are surely inherent heterogeneous in almost every imaginable aspect. Several interesting angles were raised, such as the CGIAR Centers competing too vigorously for the best NARI scientists, not to mention governments insufficiently funding their NARIs. The public-sector research systems of many countries have been reformed in various ways, but these reforms have not always brought the expected results. The involvement of the private sector remains below expectations in most situations. It seems that the NARIs may have had a focus on genetic improvement of staple foods that was adequate in earlier decades but that is out of

balance at the moment. The integration of the NARIs with other knowledge providers (e.g., universities) is starting to occur, principally under the influence of new funding mechanisms, but will still require a substantial boost in many countries. How then can the CGIAR interact with more diversified national and regional innovation systems is a tough question that the Panel did not really manage to answer. More generally, Panelists wondered what should the possibly key role of the CGIAR be in capacity building, especially in the NARIs that are not so strong. Likely novel international mechanisms should be developed for engaging the stronger NARIs in such work.

5. International competitiveness

The constraints to turning the comparative into a competitive advantage appear to lay in the organization and the management capacity of the sector more than in the productivity levels or the research system. Community-company partnerships in the context of better forest management for efficiency and competitiveness were mentioned as one relevant institutional innovation. Marketing channels, quality control mechanisms, market intelligence systems, processing storage and trading technologies must be improved to realize competitive advantage, particularly for non-traditional, possibly niche, markets such as organic coffee or vegetables. Some Panelists expressed concerns about developing countries' ability to respond to globalization and new WTO procedures. There were calls for more research on national policies and trade strategies, in part within the CGIAR and not just through IFPRI. The advantages many countries have that stem from their low labor costs as well as year-round crop growing conditions in many areas are clearly important elements of the competitive environment.

Such matters of competitiveness raise many technical issues that are not readily handled in a broad consultation of this type. For instance, there was discussion on livestock export problems in SE Asia including for cultured seafood, raising key policy research as well as to other sectoral investment matters. These were argued to include the research system infrastructure itself, leading to an intriguing observation that "Infrastructure contributes to immobility of mindset."

6. Asian Priorities

The Panel mainly developed a rather general perspective along with some specific thoughts dealing with the issues of poverty, productivity, environment, institutions and competitiveness. Several Panelists called for stronger impact work in and on the System, arguing this could be critical for underpinning fund-raising efforts, and also for structured learning to better improve future CGIAR operations.

Responses by the Panel to a CGIAR Laundry List question are summarized indicatively below to conclude this brief summary of our deliberations.

Gaps and Opportunities for the CGIAR: Prioritizing Areas of Work by Asia Panel

[Indicative allocation of 200 voting points]

Germplasm Improvement (45)

1.	Enhancing germplasm through conventional approaches.	15
2.	Enhancing germplasm through biotechnology	10
3.	Characterization of genetic traits in plants and animals	5
4.	Stress resistance in food staples	5
5.	Nutritional content of food staples	5
6.	Work on high-value crops with export potential	5

Germplasm Collection and Conservation, Saving Biodiversity (15)

1.	Sustaining biodiversity	5
2.	Help partners live up to international obligations (e.g. CBD)	0
3.	Collect, conserve, evaluate, enhance, distribute, etc. germplasm	10

Sustainable Production Systems (45)

1.	Defining production potential of the natural resource base	5
2.	Synthesis, storage, dissemination of NRM information	5
3.	Integrated Natural Resources Management: develop	5
4.	Effective pest management/Integrated Pest Management	
5.	Integrated Crop and Livestock Systems	10
6.	Forage and feed crops as component of systems	
7.	Integrated Nutrient Management Systems	
8.	Small-Scale Water management and Water Use Efficiency	5
9.	Systems for drought prone areas	10
10.	Farm mechanization	5

Improving Policies (25)

1.	Public and private sector issues	5
2.	Incentives and markets: input and output markets, seed	2
3.	Study opportunities for post-harvest value-added/processing	8
4.	Understanding farmers' acquisition and use of nutrients	
5.	Studies to improve the funding levels/allocation of resources	5
6.	Better understanding of poverty dynamics (especially in LFAs)	5

Strengthening NARSs and other Rural Institutions (25)

1.	Training of scientists and research managers	5
2.	Training materials on crops	
3.	Research on empowerment of farmers and communities	
4.	Build organization and management capacity NARIs	15
5.	Research on ag innovation systems and innovation processes	5
6.	Building capacity of SROs (sub-regional organizations)	0

Crosscutting Activities and Outputs (45)

1.	Identifying poverty: mapping location and correlates of the poor	10
2.	Development of new research tools (e.g., biotechnology, genomics)	10
3.	Development of new information tools (e.g., GIS, modeling of systems)	10
4.	Doing better, stronger impact work in and on the System	15