

## IAASTD Global Chapter 8 Key Messages

1. **Policy options exist to provide enabling environments for participatory approaches, farmer field schools, farming systems research and development, at the farm and community level, to release their potential in generating innovation, empowerment, women's emancipation, not only in IPM, but in health, soil fertility and water management.** However, at the macrolevels (national and international) these approaches have, on the whole, scarcely been incorporated into national policies or poverty reduction strategies. The rural poor have no political clout and, in the short term, hardly any visible contribution to make at the macro level. Unless concrete (market) opportunities are created for resource-poor farmers, these approaches will not lead to sustainable results.
2. **Options for improved resource management in the agricultural sector have roots in the same fundamental paradigm shift that is required for all aspects of sustainable development – full cost accounting and recognition of the multifunctionality and interdependence of landscapes.** Some options include increased investment in sustainable surface water delivery to stop aquifer water-mining; the establishment and strengthening of agencies administering large water systems that cross traditional administrative boundaries; systems for monitoring forest conditions and forest dwellers' welfare, more transparent land and forest allocations and regulations; more support for monitor regulatory compliance by government, landholders, and forest concessionaires; more efficient forest and land use regulations that minimize monitoring, enforcement, and compliance costs.
3. **Agricultural trade liberalization has not benefited poor farmers and rural communities and tends to exacerbate the environmental impacts of agricultural production throughout the production chain.** Projected welfare gains from further liberalization are small, derive mostly from the liberalization of manufacturing sector not agriculture, and accrue largely to developed countries. The poorest countries are among the net losers under all trade liberalization scenarios. The environmental impacts of increased global agricultural trade include increased long distance transport contributing to greenhouse gas emissions, increased use of synthetic inputs, and increased specialization and monoculture production which tends to decrease agrobiodiversity. Climate change and worsening water shortages may require policies to move away from traditional agricultural trade liberalization.
4. **Market mechanisms to internalize environmental externalities of agricultural production and pay for agroenvironmental services are needed to stimulate the adoption of sustainable agricultural practices and improve natural resources management.** The positive environmental externalities present in many forms of traditional and sustainable agriculture are not assessed nor accounted for. As trade liberalization subjects farmers who practice these types of agriculture to deregulated international competition, these positive externalities may be lost, replaced in the global accounting by the negative externalities of high-input modern production practices that do internalize environmental and social harms in the price of traded agricultural products. Policy approaches to address the globalization of market failure include taxes on pesticide use as incentives to reach use reduction targets, support for organic agriculture and carbon footprints, a policy mechanism to internalize the energy costs of agricultural production via the application of a market standard related to the level of carbon emission required to supply a product to the consumer. Payment for environmental services (PES) is an approach that recognizes the multifunctionality of agriculture, and creates mechanisms to value and pay for the benefits of ecosystem services provided by sustainable agricultural practices such as organic production, watershed management, and agroforestry practices and carbon sequestration among other resource conservation

measures as a public good. To support development goals PES schemes should be structured to generate stable revenue flows to help ensure long-term sustainability of the ecosystem that provides the services, and to ensure that small farmers and communities, not just large landowners, may participate and benefit.

5. **Mechanisms to democratize global trade regimes and market relations are fundamental to achieving development and sustainability goals.** The principles of good governance, including transparency, representation, accountability and access to information, should be applied to international trade negotiations, so that social and environmental concerns are better represented in the resulting agreements. Strategic Impact Assessments of proposed trade agreements would help educate policy makers and stakeholders, increase transparency, and promote decision-making that would support development goals; similarly international comparative technology assessments of emerging technologies such as nanotechnology and biofuels would assist in making investment and policy decisions on these and other emerging technologies that would support the achievement of development and sustainability goals. Democratizing market relations is also necessary to support development goals. A major anti-competitive effect of globalization has been a rapid concentration of market power in a limited number of transnational agribusiness companies which has driven down negotiating power and prices for agricultural producers, especially resource poor farmers in developing countries. International competition policy and anti-trust mechanisms are needed to govern corporate power over commodity markets and promote more equitable distribution of agricultural rents that could help improve rural livelihoods and drive development.
6. **Agricultural trade liberalization has not mitigated the steep decline in agricultural commodity prices. New policy approaches are needed to stabilize and increase farm-gate prices, a key factor in determining farmers' capacity to invest, innovate and make AKST an effective tool for improving rural livelihoods.** Current proposals for the elimination of industrialized country subsidies are projected to increase prices only slightly (e.g. about 12% for cotton) and benefit just a few developing countries; additionally subsidy elimination carries significant potential environmental trade-offs, including increased deforestation resulting from shifting production to the developing South. A combination of anti-dumping disciplines (to prevent predatory pricing), expanded special products provisions, supply management approaches, and agricultural diversification to reduce commodity export dependency and enhance national productive capacity are also needed. Additional policy options to reverse the decline in commodity prices include instituting price bands, a renewed effort to negotiate international commodity agreements, and the reestablishment of state trade enterprises to serve as a competitive counterweight to multinational agribusiness companies.
7. **Multiple, complementary approaches, including abolishing tariff escalation to encourage investment to add value locally, micro-finance, fair trade and organic production, and private sector sustainable trading initiatives are needed to enable farmers and rural communities to capture value in commodity chains, improve livelihoods and transition to sustainable agricultural practices.** Local processing and value addition to primary goods offers a major income opportunity for developing countries, yet in many cases this is not being achieved because many OECD markets apply escalating tariffs that prevent market entry of value added goods. Tariff escalation policies act as a barrier to adding value locally, and should be ended to enable local value added agricultural processing that could diversify and significantly improve rural livelihoods and economies. Additional approaches including targeted micro-finance credit and insurance schemes; fair trade initiatives which provide greater equity in international trading, higher commodity prices and incentives to adopt sustainable agricultural practices including organic production; and new business and procurement models that may be adopted by supply chain partners to increase market access for

small-scale farmers, are all important policy options to pursue. Agricultural market analysis services, market education, and market information services aimed at small farmers, as well as strengthening agricultural research and extension to provide market information and marketing assistance, are necessary to enable farmers to take advantage of new market opportunities.

8. **Internationally, policy and regulation related to food safety, plant and animal health could be better integrated to more effectively utilize the limited resources that are applied to SPS issues. Food safety standards are largely implemented in developing countries for the purpose of trade facilitation, with little benefit to domestic consumers who are affected by a wide array of food-borne illnesses.** Confining Codex, OIE and IPPC to work within their constitutional mandates may be of less relevance today given the globalization of agriculture and trade. The efficacy of working within the traditional international mandates is challenged by the emergence of alternative regulatory mechanisms that integrate food safety, animal and plant health related standards and production practices in on-farm HACCP plans. Revising SPS-related policy and regulatory measures within a biosecurity framework may be one option for promoting cross-sectoral interventions.
9. **IPRs may pose serious risks to research and the use of technologies in development.** Even though license agreements may promote technology transfer by clarifying roles and responsibilities in some cases, policy mechanisms are needed to protect and remunerate traditional knowledge and genetic resources from which many industrialized products are derived. Options exist for correcting international policies on intellectual property rights to AKST at the national level to reduce cost, compared to the benefits. In countries where public sector research institutions promote introduction of IPRs in agriculture, this promotion may challenge the public tasks of contributing to poverty alleviation and household nutrition security. Even though IPRs fit in a commercial approach to innovation, in many countries it is the public sector research institutions that promote the introduction of IPRs in agriculture. This is mainly based on a perception that these institutes may obtain significant revenue when their inventions (e.g. plant varieties) may be protected. This revenue is welcomed in a situation of under-investment in public research in many countries, which is common in many countries since the 1990s. This 'life line' may, however, have a major setback, i.e. that such benefits can only be obtained in commercial markets (e.g. seed markets) and reliance on IPR based revenues is likely to lead to a change in public research priorities from development to business opportunities, in some cases to commercial crops like maize and oil crops at the cost of research on small grains and pulses, and to benign cropping conditions and market oriented farmers at the cost of a smallholder farmer focus. Such shifts may fit in market orientation priorities of national development strategies, but may at the same time challenge to some extent the public tasks of contributing to poverty alleviation and household nutrition security.
10. **Policy options exist for devising Natural Resources Management policies better taking into account how ownership and accountability are shared among communities through common rights and not only in the legal form of individual property.** Laws, incentives, contracts, taxes, quotas and permits have to take in account this diversity of NRM knowledge. The design of NRM policies should not be derived from or conform to a concept of individual ownership and rights that is not universal.
11. **Policy options exist for strengthening markets for organic products through multiple instruments, including group certification schemes for farmers in**

1 **developing countries.** Attention must be paid to link organic and fair trade schemes to  
2 development of urban markets in developing countries and markets in industrial  
3 countries.  
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5 **12. Important reasons for the failure of pro-poor AKST are policies dominated by belief**  
6 **in technology supply push and the market driven global agricultural treadmill;**  
7 **political impasse caused by the refusal by national governments of agricultural**  
8 **export countries to accept global governance to redress marginalization of**  
9 **resource-poor agricultures, and over-reliance of the free market as the design for a**  
10 **desirable society and neglect of material flows and governance mechanisms other**  
11 **than hierarchy and market.** International AKST has not resolved the difference  
12 between: (1) focus on technology development to enhance productivity at the farm level  
13 and drive the global treadmill, and (2) a focus on institutional development. Pro-poor  
14 AKST focuses on pathways that increase opportunity through institutional change,  
15 especially access to urban and export markets. The Innovation System approach holds  
16 promise of being an effective tool for this. Supervised schemes need to be linked to local  
17 processing and value adding, market and supply chain development, and urban retailing.  
18 A pre-condition for pro-poor AKST is investment in gender-sensitive empowerment,  
19 education, information and organization of resource-poor farmers.  
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21 **13. One of the key issues in pro-poor policy development is the belief in old AKST**  
22 **policy models that do not apply in the conditions of resource-poor agricultures.**  
23 This holds in particular for the linear technology supply push model that emerged in the  
24 40s in the US Mid-West and some European countries, and that continues to inform the  
25 policies and strategies of WTO and CGIAR. Pro-poor development assumes a wide-  
26 spread *prise de conscience* among neo-classical agricultural economists, agricultural  
27 scientists, policy makers and voters to address the assumptions that underpin the  
28 pathways for pro-poor AKST impact.  
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30 **14. Technical innovation at the farm level to increase productivity and incomes in**  
31 **resource-poor agricultures can only be effective if farmers have opportunities to**  
32 **market their produce.** Policies must prioritize market access for resource-poor farmers.  
33 A key issue is access of small farmers to urban supermarkets in their own countries.  
34 Supermarkets are increasingly capturing the urban markets for agricultural products and  
35 tend to source from industrial agriculture imports.  
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<sup>i</sup> (Structural Adjustment has thrown away the child with the bathwater by liberalizing supervised credit schemes. These schemes have so far demonstrably been the most successful approach to putting money in smallholders' pockets. It was not the approach that was wrong but the way parastatals applied it).