CHAPTER V

POLICY CHALLENGES AND OPTIONS

A. The main policy challenges

Expansion and revitalization of agricultural production is crucial for developing countries, both to meet the rising food needs of their burgeoning populations, and as a basis for economic diversification and development. In order to realize these objectives, there is a strong and urgent need to invest more in this industry. Increasing investment from private domestic and foreign sources is critical, particularly as public sector funds for agricultural investment are limited in many countries, and the share of agriculture in official development assistance (ODA) devoted to the industry has fallen.

The investment potential of local farmers is very limited in many developing countries, due to their lack of financial, managerial, technological and other resources. One alternative approach, therefore, is to harness the capabilities of TNCs. The recent renewed interest of FDI in agricultural production (chapter III) provides policymakers in developing countries with an opportunity to boost agricultural production and productivity and enhance overall economic development. As shown in chapter III, although overall FDI in agricultural production has been very low, the attractiveness of developing countries as hosts is likely to increase as global agricultural production continues to shift from developed to developing countries. Indeed, by 2017, the latter are expected to dominate the production and consumption of most agricultural commodities (OECD and FAO, 2008). Also, given that a growing number of developing countries are short of arable land, to meet the challenge of securing domestic food supply they are promoting outward investment in agricultural production (chapter III). Home countries embarking upon this path have to ask themselves under what conditions such strategies can be successful and whether there are alternatives to FDI. Host countries, on the other hand, need to consider the possible implications of such investment for their own food security, land distribution and economic development.

As analysed in chapter IV, TNC participation in agricultural production has both positive and negative impacts on the industry, and on the economy as a whole. Although TNC involvement in agriculture has contributed to enhanced productivity and increased output in a number of developing countries, and helped create employment and raise incomes, existing evidence also highlights that developing-country governments need to be aware of negative consequences that can arise from TNC participation along the agribusiness value chain. For instance, FDI may crowd out domestic investment, displace or marginalize small farmers, and concentrate market power, and thus lead to an adverse bargaining position for domestic producers, resulting in an unfair distribution of economic benefits. Governments also need to be concerned about the environmental consequences of TNCs' involvement in agriculture.

While such double-edged effects of TNC involvement are not uncommon, they are more controversial in agriculture than in most other industries. Fears have been expressed that, instead of producing food for people, TNCs produce profits for "large interests" (Vallianatos, 2001: 49–50). Policymakers cannot ignore such concerns: they need to consider what role, if any, TNCs could play in domestic agricultural production to ensure that it supports the host countries' development objectives. Successful examples (chapter IV) show that

it is possible for host countries to generate synergies by combining the resources of TNCs (such as investment, technology and distribution networks) with domestic resources (such as abundant labour and available land) for long-term agricultural development. It is also possible to learn from unsuccessful outcomes, where domestic and foreign players compete for a limited supply of domestic resources, particularly land and water, and where the market power of TNCs deters efficiency gains and leads to welfare losses. In particular, host-country governments should help local farmers to become active players in the agribusiness value chain, while also providing social protection to smallholders, especially those who are marginalized in the accelerated process of commercialization and modernization.

International investment policies can be a significant supplementary tool for developing countries seeking to promote TNC participation in agricultural production. However, how to preserve host countries' regulatory discretion, while undertaking international obligations vis-à-vis foreign investors in agriculture remains a major challenge.

This chapter analyses the above-mentioned challenges for policymakers, and discusses policy options and implications.

Section B examines host-country policy options with regard to openness to FDI in agricultural production. It then explores policy approaches aimed at maximizing the benefits of TNC participation, such as leveraging FDI for agricultural development and the establishment of linkages between local farmers and TNCs. This section also looks at environmental and social concerns pertaining to TNC involvement in the industry, including corporate social responsibility, and discusses some other relevant policy areas. Section C assesses relevant home-country policies, particularly recent home-country strategies aimed at encouraging outward FDI for domestic food security. Section D widens the analysis to international cooperation, with a focus on the role of international investment agreements (IIAs). Section E draws conclusions and offers policy recommendations.

B. Host-country policy options for TNC participation in agricultural production

When designing strategies in respect of TNC participation in agricultural production, host countries need to distinguish between different forms of such involvement, especially FDI and non-equity forms of participation (i.e. contractual arrangements between TNCs and local farmers and other links through food value chains). Each type of TNC involvement has particular impacts on the host country (chapter IV), and may therefore require different host-country policy responses. Economies of scale, heavy investment requirements and technical difficulties in dividing the production process between different agents (e.g. production of biofuels) are arguments in favour of FDI, whereas high labour intensity favours non-equity TNC involvement through linkages with local farmers (Kirsten and Sartorius, 2002).

Host-country policies range from complete or partial prohibition of TNC involvement in the production of individual commodities to active promotion of FDI. They are often a mixture of encouraging and regulatory elements, where TNC participation is promoted for the production of individual commodities or for specific purposes. Some host countries apply laissez-faire policies, with no specific rules for TNC involvement in agricultural production. They deal with individual concerns, such as land use, or environmental or social impacts in their overall regulatory framework.

These findings are confirmed by a survey of governments conducted by UNCTAD,[1] which revealed that most of the respondent countries allow FDI in agricultural production. This is consistent with a survey of investment promotion agencies (IPAs) also undertaken by UNCTAD (see below), where the majority of the respondents (59%) indicated that they promote FDI in agricultural production.

1. Openness to FDI in agricultural production

The degree of openness of a country to FDI in agricultural production is determined by a number of factors. Amongst the most relevant are the entry conditions for FDI, regulations concerning land and water use, and investment protection and promotion measures. Each of these factors is discussed below.

a. Entry conditions

Policymakers first need to determine to what extent they wish to open their countries to FDI in agricultural production. Many developing countries do not have special entry regulations for such FDI; instead they apply their general rules on foreign investment.[2] These regulations vary between countries.

Specific entry restrictions on FDI in agricultural production are typically based on *socio-political, cultural economic or security-related considerations*, according to which agricultural production is reserved for local farmers. The main policy instruments for determining the entry conditions for FDI in this industry are outright prohibition or limits on foreign ownership, or approval requirements (box V.1).

b. Land and water use

As discussed in chapter IV, FDI in agricultural production can have politically sensitive implications for land and water use. This is reflected in land ownership restrictions imposed by numerous developing countries for political, economic, security-related, social or cultural reasons. Instead, many countries prefer long-term land lease contracts to foreign ownership.[3] How access to agricultural land is regulated varies between countries and regions. In general, many countries in Latin America and the Caribbean are open to foreign ownership of agricultural land, while many transition economies allow agricultural land use by foreigners only in the form of lease contracts. Africa and Asia show a more diverse picture, with numerous countries only allowing land lease and others permitting both foreign ownership and lease. The regulatory system is often complex.[4]

From the point of view of foreign investors, the lack of clear titles and cumbersome administrative procedures for the allocation of land use rights are among the major barriers to investment in agricultural production. Procedures are often difficult, expensive and lengthy, sometimes stretching over several years (USAID, 2008). Land deals between the government and a foreign investor may involve several contracts and legal instruments, and a wide range of public and private stakeholders at the local, regional and national levels. Additional hurdles can be the absence of clear records of land titles and the existence of multiple legal provisions relating to land ownership or use at various levels. Moreover, reforms are extremely difficult because of differing concepts of land rights, including the legitimacy of land ownership and the existence of customary, common and traditional rights, especially where it is hard to define the actual holder, be it the tribe or the chief. There may also be interlocking claims arising from, for example, different sources of historical legitimacy or displacements as a result of conflicts (Biacuana, 2009; Kanji et al., 2005; Manji, 2005; Rugadya, Nsamba-Gayiiya and Kamusiime, 2006; Ubink, 2004).

The issues of clarifying land rights and facilitating procedures were analysed in some recent Investment Policy Reviews conducted by UNCTAD. These reviews point out that policymakers have a wide choice to address the problems. They vary from defining secure and transferable land titles, adopting appropriate land surveying, planning and zoning, eliminating superfluous administrative and procedural steps, and building and maintaining electronic records of land transactions (UNCTAD, 2009h, 2009i, 2009j). Improvements in these areas would benefit TNCs and domestic individuals and companies alike.

Equally important is the issue of water rights. In many developing countries, legislation on water rights is either missing or not effectively implemented, or it is based on vague customary or local laws, thus discouraging investment in agricultural production. The situation is further complicated by the fact that agricultural production in many countries depends on irrigation, and delivery of water may be based on complex service contracts between the investors and the irrigation agency. Host-country governments therefore need to introduce and manage sophisticated regulatory mechanisms for the granting, administration and duration of water rights. To reduce the risk of disputes, investment contracts should be sufficiently specific with regard to the obligations

Box V.1. Specific entry regulations for FDI in agricultural production

Agriculture-related entry conditions in a number of countries are presented below.

China's policies on foreign ownership and control vary for different agricultural products and agriculture-related activities. This is reflected in the *Catalogue for the Industrial Guidance of Foreign Direct Investment*, which was amended in 2007. According to the catalogue, foreign participation in some areas is encouraged (e.g. by preferential tax treatment), while in a few areas it is restricted or prohibited. For example, breeding and seed development companies have to be majority-owned by Chinese companies; and foreign investment in the development of genetically modified (GM) seeds and the plantation of domestic-specific "precious varieties", such as some traditional Chinese herbal medicines, is prohibited.

India prohibits FDI in agricultural production in general, with the exception of floriculture, horticulture, development of seeds, animal husbandry, pisciculture, and cultivation of vegetables and mushrooms under controlled conditions as well as services related to agro and allied sectors. For these exceptions, an automatic approval route applies. In the tea sector, prior approval is needed and 100% foreign ownership is permitted subject to the condition that 26% of the equity be divested in favour of a domestic partner (private or public) within a period of five years.[a] Also, any changes in future land use are subject to prior approval.

Tunisia permits foreign equity in the agricultural industry of up to 66%.[b]

In the *Republic of Korea*, foreign entities may not cultivate rice and barley.[c]

Source: UNCTAD.

[a] OECD (2009:47 fn 71).

[b] See http://www.tunisie.com/APIA/foreign_investment.htm.

[c] Public notice by the Ministry of Knowledge and Economy, No. 2009-81.

of the contracting parties and the consequences of a breach of those obligations.

c. Investment promotion and protection

Investment promotion schemes are important policy devices for developing countries that are seeking to attract FDI in agricultural production. Promotional measures include, for instance, various forms of fiscal, financial and technical support (box V.2).

As part of background research for this report, UNCTAD and the World Association of Investment Promotion Agencies (WAIPA) jointly undertook a survey on the role of investment promotion agencies in attracting FDI in agricultural production and promoting investment in overseas agriculture.[5] This section presents the main findings.

The majority of respondents (59%) reported promoting FDI in agricultural production, although amongst developed countries the proportion of IPAs active in this area was considerably lower (28%) than that from developing regions (73%) and transition economies (60%).[6] In particular agencies from Africa (87%) and Asia (75%) reported promoting foreign investment in agriculture, while just over half of those from Latin America and the Caribbean do so. Moreover, between 50% and 60% of respondents from developing and transition economies stated that they accorded greater importance to attracting foreign investment in agriculture today than three years ago, and they expected the industry would gain even further priority in their work until 2011.[7] Their main motivation for this is to enable their countries to derive more benefits from the competitive advantages of their agricultural industries, and because of the importance of agriculture for exports and gross domestic product (GDP).[8] In particular, IPAs expect TNCs to make new technologies, finance and inputs available to the industry and to help provide market access.

IPAs showed varying degrees of interest in different agricultural activities, but a particularly large percentage of them indicated a strong desire to attract FDI in the production of cash crops (table V.1). More than half of the respondents reported actively promoting FDI in one or more cash crops, especially fruits and vegetables. Also many agencies were targeting FDI in animal products, such as meat and poultry and dairy, and to a lesser extent in staple crops and biofuel commodities.

Although there appeared to be no significant regional variation in terms of priorities, there were some clear differences in the level of attention given to specific activities. This can partly be explained by the fact that production of specific crops is often limited by geographical conditions. Overall, these findings

Box V.2. Examples of policies for promoting investment in agriculture production

Various developing countries have introduced incentives for encouraging investment in agriculture. The following are some examples:

Argentina offers, for example, tax relief for projects associated with biodiesel fuels – an area in which Argentina has a competitive advantage, given its low production costs in agriculture (Law No. 26,093 published in the Official Gazette, 15 May 2006).

China has adopted a selective support policy on foreign investment in agriculture (Ge, 2009). FDI for the production of some agricultural products and TNC involvement in related activities are encouraged (see also box V.12). According to the *Catalogue for the Industrial Guidance of Foreign Direct Investment*, for instance, foreign investment in the production of products such as rubber, sisal and coffee is encouraged (e.g. through tax incentives).

Nigeria offers, inter alia, (i) unrestricted capital allowance for agribusinesses, and up to 50% for agro-related plants and equipment, (ii) guarantees of up to 75% of all loans granted by commercial banks for agricultural production and processing under the Agricultural Credit Guarantee Scheme Fund (ACGSF), and (iii) 60% repayment of interest provided by the Interest Drawback Program Fund paid by those who borrow from banks under the ACGS for the purpose of cassava production and processing, provided such borrowers repay their loans on schedule. Also, processing of agricultural produce has been declared a pioneer industry which entitles the companies involved to 100% tax exemption for a period of five years.[a]

Papua New Guinea, under the rural development incentive, encourages agricultural production of any kind by inter alia granting a 10-year exemption from corporate income taxes for businesses engaged in agricultural production that are established in specified rural development areas. Also, accelerated depreciation rates are offered for new plants (other than residential property with a cost exceeding kina 100,000 – approximately $37,250) with a life span exceeding five years that are used in Papua New Guinea's agricultural production.[b]

Viet Nam had set a target of mobilizing approximately $8.2 billion from 2006 to 2010 for investments in agricultural development.[c]

Source: UNCTAD.

[a] Nigerian Investment Promotion Commission (NIPC), Investment Incentives, available at: http://nipc.gov.ng/investment.html.
[b] Papua New Guinea Investment Promotion Agency, www.ipa.gov.pg.
[c] Website of the Ministry of Agriculture and Rural Development.

Table V.1. Percentage of IPAs that promote FDI in specific agricultural commodities, by region, 2009
(Percentage of respondents)

Commodity	Total	Developed countries	Developing countries				SEE and CIS
			Total	Africa	Asia and Oceania	Latin America and the Caribbean	
Staple crops	32	11	42	60	25	38	20
Cereals	27	11	35	53	17	31	20
Roots and tubers	19	11	22	27	17	23	20
Cash crops	56	28	67	80	67	54	60
Fruits	46	22	55	60	50	54	60
Coffee	17	-	27	40	8	3`	-
Tea	14	6	17	40	-	8	20
Cacao	14	-	22	7	17	46	-
Fibre crops	14	6	17	40	-	8	20
Horticulture	52	28	62	73	58	54	60
Vegetables	44	22	52	53	58	46	60
Floriculture	24	17	30	47	8	31	-
Animal products	44	22	52	60	50	4	60
Meat and poultry	40	22	45	53	50	31	60
Dairy	35	22	37	53	17	38	60
Biofuel crops	22	11	27	40	25	15	20
Other	38	17	47	67	33	38	40
Soybeans	13	6	17	20	8	23	-
Oil crops	22	6	30	40	25	23	20
Other	22	11	25	40	17	15	40
Number of responses	*63*	*18*	*40*	*15*	*12*	*13*	*5*

Source: UNCTAD–WAIPA Survey of IPAs, February–April 2009.

confirm the broad patterns of openness to TNC involvement (see section B.1.a). Cereals are more frequently targeted in Africa and in Latin America and the Caribbean than in Asia, where, for instance, rice farming is strongly protected. Other noteworthy differences between regions include the relatively high priority given by IPAs in Latin America and the Caribbean to cacao, and the relatively low priority to meat and poultry and biofuel crops as compared to other developing regions. A possible explanation is that there is already a strong domestic presence in these industries. Finally, a large proportion of agencies in Africa seek to attract foreign investment in biofuel crops.

Notwithstanding the fact that barriers to FDI may vary, both between specific countries or regions and between different crops, the participating IPAs highlighted a number of major obstacles.[9] The main impediment to attracting foreign investors into agriculture is the lack of good quality infrastructure services, as reported the most by IPAs from Africa (40%) and to a lesser extent by those from Latin America and the Caribbean (31%) and Asia (25%). Another major obstacle reported by agencies from developing countries is the lack of quality inputs (25%). Furthermore, one third of the agencies from Asia indicated that export restrictions on agricultural products and the lack of local partners were the main barriers to FDI. Political uncertainty and administrative obstacles were reported by more agencies from both Asia and Latin America and the Caribbean.

Only a minority of respondents (22%) reported targeting TNCs from specific home countries or regions. This was the most common among IPAs from Africa (47%), and the least among those from Asia (17%). In the majority of cases, no country or region was targeted in particular, although some agencies focused on only one or two specific countries, while others showed interest in a wide variety of countries and regions.

Investor targeting, investor aftercare and policy advocacy to address specific problems that foreign investors face in the agricultural industry remain critical tasks for IPAs. For instance, a number of IPAs have established a land bank directory with the objective of identifying potential land for investment, including in agriculture. Under this approach, land is sourced in order to make it readily available for strategic investors and developers. One example in this regard is Ghana.[10]

With respect to investor targeting, IPAs could employ strategies to develop clusters (for instance, in cut flowers, viticulture, dairy industry and apiculture). For many agricultural products a critical mass of producers and agricultural support services (pest and disease control, agricultural machinery, storage and transport, research and breeding, and marketing services) is necessary for becoming internationally competitive. Both potential producers and service providers should be targeted, including those with similar products in similar climatic zones. It is important to ensure that direct or indirect incentives do not discriminate against small farmers and small- and medium-sized enterprises. Investor aftercare is particularly important because of the rural locations where many of these companies often operate. IPAs should consider appointing specialized officers who operate as an extension service to deal with the day-to-day and longer term problems that investors face. These problems vary by country, but land and water issues are often mentioned as sticking points, as well as lack of rural infrastructure.

Besides investment promotion, the provision of adequate *investment protection* is an FDI determinant that host countries seeking to attract FDI in agricultural production need to take into account. This includes, in particular, protection of foreign investors against discrimination, expropriation and transfer restrictions, and putting in place efficient dispute settlement mechanisms (see also section D.2).[11]

2. Maximizing development benefits from TNC participation

Host countries face the challenge of how to maximize the benefits from TNC involvement in agricultural production. This includes benefits from FDI and from contractual arrangements between TNCs and local farmers.

a. Leveraging FDI for long-term agricultural development

In order to leverage FDI involvement, developing countries should, above all, seek to match incoming foreign investment with existing domestic resources, such as availability of labour and land. In particular, in light of the recent interest in outward FDI to secure domestic food supply, there is potential for host countries to benefit from such investment to meet their own staple food requirements, provided that the resulting production is shared between home and host countries. FDI should create positive synergies to make sagging, traditional agriculture more competitive and economically viable, and to promote long-term agricultural development. Besides the legislative framework in host countries, investment contracts between the host government and foreign investors can be important instruments for enabling a country to maximize the contribution of FDI to sustainable agricultural and rural development, in particular in respect of investments involving major land deals. These contracts should be structured in a way to maximize benefits for host countries and local farmers. Among the critical issues that should be considered in investment contracts are: (i) entry regulations (see also Hallam, 2009; and section B.3), (ii) the creation of on- and off-farm employment opportunities, (iii) transfer of technology and R&D requirements (see section B.4.d, and chapter IV), (iv) the welfare of local farmers and communities, (v) production sharing, (vi) distribution of revenues, (vii) local procurement of inputs, (viii) requirements of target markets, (ix) development of agriculture-related infrastructure, and (x) environmental protection. Host countries should also be aware of the possible conflict between how they seek to attract foreign investors in investment contracts (e.g. a commitment to never impose export controls or to reduce tariffs on imported inputs) and internationally agreed trade rules.

Another possibility that has been suggested is to develop a method for governments and development agencies to implement sustainable and integrated FDI projects related to agricultural production. The objective would be to assess whether the conditions for making an investment are fulfilled and ensuring that the project furthers development goals. Questions to be addressed in this context include: (i) what products are feasible for production in a certain region from a technical point of view, (ii) whether there is a market for the products, (iii) whether the project could be financially attractive for an investor, (iv) how to settle relationships with smallholders, and (v) how to motivate sustainability of the project (Neves and Thomé e Castro, 2009).

An incentive system can also play a role. Within the framework of an overall agricultural development strategy, host-country governments should identify priorities and consider incentives for TNC involvement in preferred areas. Such areas might include the production of high-value-added varieties, participation in organic and fair-trade schemes, the establishment of international joint ventures, the transfer of technology related to those agricultural commodities in which the host country is particularly interested, and the promotion of local R&D activities (see also chapter IV).

With regard to the increasing number of FDI projects that are targeting large areas of land for staple food production (chapter III), host countries should consider output-sharing arrangements with the foreign investor. The social and environmental impacts of these projects should be assessed carefully, and particular attention paid to the long-term implications for domestic agricultural development and food security. Negotiations should be transparent with regard to the land involved and the purpose of production, and they should include the participation of local landholders (von Braun and Meinzen-Dick, 2009). In this context, the United Nations Special Rapporteur on the Right to Food has developed a set of core principles and measures to address the human rights challenge of large-scale land acquisitions and leases (de Schutter, 2009). The FAO, IIED and IFAD have made recommendations for agricultural investments and international land deals in Africa (box V.3). Also, in the preparation of the G-8 Summit in L'Aquila in July 2009, it had been proposed to develop joint principles for international agricultural investment involving land deals.[12] Furthermore, as noted in chapter III, some governments allow foreign investments in export-oriented agricultural production, provided these create additional benefits for the host country, such as infrastructure development (including the building of schools and hospitals), technology transfer, training, and/or the sale of goods or raw materials at preferential prices.

b. Promoting contractual arrangements between TNCs and local farmers

(i) Regulations on contract farming

In general, host-country policies impose few restrictions on TNC involvement in contract farming. Most host countries regard it as an opportunity to

improve life for local farmers rather than a threat. Despite the ever growing number of contract farming agreements worldwide, special legal regulations on contract farming, be it with domestic or foreign firms, exist only in a few developing countries, and examples that could be found for this report are mainly from Asia.

For example, India, Thailand and Viet Nam have introduced special regulations on contract farming over the past decade.[13] The provisions address, inter alia, the establishment of a special register or a notification procedure for contract farming agreements, special regulations on land lease by enterprises and land property rights of farmers, compensation in case of contract breach (e.g. quality defects of the produce) and rules relating to *force majeure*. Another key aspect relates to special dispute settlement mechanisms; in some cases decisions are final, binding and enforceable.

Where specific regulations are lacking, general contract laws may fill the gap. Contractual approaches often vary amongst different contractors (chapter III). A number of countries have made political commitments to foster contract farming or monitor its impact.[14]

(ii) Promotion of contractual arrangements

Improving the productivity of local farmers is fundamental for enhancing agricultural development in developing countries. Therefore, a key element of developing countries' strategies should be the promotion of linkages through contractual arrangements between TNCs and local farmers that enable the latter to enhance and upgrade their capacities, in particular through transfer of technology and other knowledge (chapter IV). One particular approach in this respect is the promotion of outgrower schemes or integrated producer schemes (chapter III; box V.5), where the TNC acts as the lead firm that organizes and overlooks agricultural production by a multitude of local smallholders or cooperatives. In general, TNCs have been mainly involved in contractual arrangements for the production of cash crops. Therefore, promoting contract farming in staple food production, with a view to alleviating the food crisis, remains a challenge for policymakers.

Governments should examine the whole value chain with a view to identifying bottlenecks to effective cooperation between TNCs and local farmers. Governments and their specialized agencies need to have the capacity for such analyses, including the ability to design appropriate training and competence strengthening measures. Among the most relevant issues that need to be tackled by host countries are: (i) smallholders' inability to supply products of a consistent quality and in a timely manner; (ii) lack of modern technology and standards; (iii) lack of capital; (iv) remoteness of production; (v) limited role of farmer organizations; and (vi) lack of adequate legal instruments for dispute settlement (HLTF, 2008).

(1) Improving the capacity of smallholders to supply products of a consistent quality and in a timely manner

One policy option is the provision of government-backed *education and training programmes* for local farmers in order to make them better prepared for cooperating with TNCs. Even basic education is often lacking in rural populations. At a more advanced level, teaching about biophysical properties and growing conditions, including the proper use of

Box V.3. Agricultural investment and international land deals in Africa: policy recommendations for host countries

The FAO, IIED and IFAD have jointly developed a set of general recommendations for agricultural investment and international land deals in Africa. These recommendations address different stakeholders, namely investors, host governments, civil society (organizations of the rural poor and their support groups) and international development agencies.

The recommendations addressed to host governments include the following:

- Governments need to clarify what kinds of investment they want to attract;
- Attention to increased agricultural productivity needs to be balanced with assessment of how gains are achieved and how benefits are shared;
- State-of-the-art assessments of the social and environmental impacts of proposed investments are needed;
- Governments should ask hard questions about the capacity of investors to manage large-scale agricultural investments effectively;
- Land contracts must be structured so as to maximize the investment's contribution to sustainable development;
- Mechanisms should be developed to discourage purely speculative land acquisitions;
- Investment decision-making must be transparent;
- Efforts must be stepped up in many countries to secure local land rights.

Source: Cotula et al., 2009.

cultivation methods, can be helpful. Since farmers are increasingly affected by market demands or drawn into discourses on sustainability, freshness, food safety and quality, government-sponsored programmes could also prepare them for these expected requirements (McKenna, Roche and Le Heron, 1999: 39). Innovation and knowledge need to be improved on a continuing basis without charging farmers high consultancy fees, given the disadvantaged socio-economic conditions of smallholders (Msuya, 2007: 7). In Brazil, for instance, the Government sponsors a television programme aimed at informing and educating farmers. There is also a significant role for non-governmental organizations (NGOs), including farmers' cooperatives, and international organizations, as the example of the "Songhai model" in Africa demonstrates (see box V.4).

Local farmers would also benefit from more information about the pros and cons of different types of contract farming. To establish oversight and ensure fair and informed bargaining, governments could consider the development of model contracts to protect the interest of farmers in their negotiations with TNCs. Model contracts could also be a useful policy tool for avoiding disputes between the contracting parties.

Often, a thorough analysis of the value chain will reveal the significant role played by intermediaries or "middlemen" in agribusiness in liaising between large buyers and small-scale farmers. Two policy options are available relating to these intermediaries: (i) cutting them out and thus establishing a direct flow of technology and knowledge transfer between farmers and buyers/firms; or (ii) permitting stronger integration of the intermediaries by training them to become a medium or channel through which technology and knowledge are transferred, and enabling them to advise producers on how to maintain certain standards of production, service and delivery.

(2) Enhancing access to appropriate technology and standards

Contract farming arrangements with TNCs offer potential opportunities for transfer of technology. Host-country governments can play a major role in ensuring that such transfer maximizes development benefits for smallholders, for instance by guiding the extension services of TNCs (see box V.5). However, as explained in chapter IV, transfer of technology by TNCs often focuses on the production of high-value-added crops rather than staple food crops. Some of the technology and know-how that TNCs transfer in respect of cash crop production may indirectly be used for staple food production. Host-country governments that seek to increase the production of staple food crops through contract farming arrangements with TNCs therefore face the challenge of findings ways to promote technology transfer in this context. One approach could be the establishment of a joint venture between a TNC and a State entity, which would procure staple food from local farmers and provide

Box V.4. The Songhai model in Africa

The Songhai Centre, an international NGO based in Benin, is globally recognized as a world leader in promoting innovative and ecologically sustainable agricultural enterprises. It has established an integrated value chain system organized in commercially viable clusters of agro-enterprises, and developed a practically oriented training programme for graduates and youth in rural and peri-urban areas.

A joint programme of the FAO, IFAD, the ILO, UNDP, UNIDO and the Songhai Centre builds on the successful operation of the Songhai model to respond to requests from several African countries to implement agricultural entrepreneurship development programmes. The Songhai model adopts a holistic approach to agribusiness and entrepreneurship development, which involves training, provision of support services, and linkages to credit and markets through networking of graduates that have received the training.

Programme operations will initially focus on 11 countries in West, Eastern and Southern Africa: Benin, Burkina Faso, Côte d'Ivoire, Gabon, Ghana, Guinea, Kenya, Liberia, Sierra Leone, Malawi and Togo. All these countries have reviewed the regional programme framework and have endorsed both its objective and intended outputs.

The programme will have five interrelated components aimed at:

- Facilitating and supporting the establishment of a Regional Centre of Excellence for Agribusiness and Entrepreneurship Development in Africa.
- Reinforcing the capacity of relevant national institutions to establish National Centres for Agri-Enterprise Development in participating countries.
- Developing agricultural entrepreneurial skills and capabilities of youth, women and men, particularly those from rural areas.
- Creating platforms to facilitate effective linkages between agribusinesses and providers of credit, market and business support services.
- Improving the institutional business environment for small- and medium-scale agribusiness development.

Source: UNDP, 2008.

them with seeds, pesticides and other inputs (see chapter IV).

TNCs increasingly require contract farmers to comply with certain *quality standards and certification procedures*. Host-country governments may wish to promote adherence to such standards and ensure that supplies have easy access to information about the relevant requirements. They may also seek the cooperation of TNCs and donors in providing support for the implementation of agricultural quality controls. One policy strategy in this context is to create "islands of excellence" in local farmer communities.

(3) Improving the capital base of local farmers

A sufficient capital base is a prerequisite for the proper maintenance of farmland, for buying necessary equipment, fertilizers and pesticides, and for modernizing cultivation techniques (McKenna, Roche and Le Heron, 1999: 45; Vellema, 1999: 94). As explained in chapter IV, TNCs can provide local farmers with capital, or otherwise help them overcome difficulties in obtaining bank loans. Host-country policies can play an important supplementary role in this respect by providing help through tax credits or rebates, guarantees and co-financing (Vellema, 1999: 100), as illustrated by PRONAF in Brazil (see box V.6). Some developing countries, such as the Philippines, have established land banks with a special focus on serving the needs of farmers.[15] ODA funds could also be made available for that purpose.

(4) Improving business opportunities for farmers in remote areas

Host-country policies aimed at better connecting farmers in remote areas with TNC operations face two major challenges. First, public investment in infrastructure needs to be improved (see section B.4.a). Second, governments should consider the establishment of information and matchmaking services – at national and local levels – to serve both domestic farmers and TNCs, and help them overcome the information gap with regard to linkage opportunities. For instance, specific information may include details about availability of farmers, prices, qualities, standards of agricultural products, market trends and inputs (e.g. seeds and equipment), as well as the names, profiles and needs of potential foreign and domestic partners.

For example, the Heze region in Shandong Province of China is actively seeking FDI in agricultural production and related processing activities in order to develop the region into a major production and export base of organic agricultural products in the country. The local government has prepared a catalogue of projects, which provides potential foreign investors with detailed information on the market potential, estimated investment needs, projected earnings and the preferred mode of entry of TNCs. The programme covers more than 50 projects for 2009, in various commodities, such as the production of cereals, vegetables, meat and traditional Chinese medicines.[16]

Box V.5. Integrated producer schemes in the United Republic of Tanzania

In the United Republic of Tanzania, integrated producer schemes (mainly in the form of outgrower schemes) have been beneficial to smallholders in terms of increasing their productivity and specialization (chapter IV). The scheme involves a system that links production, extension services, transportation, processing and marketing, and has often included technical assistance from foreign companies. It requires a lead firm for governance, while the Government plays a critical role as market facilitator.

In the initial stages, the Government needs to support both smallholders and TNCs by providing guarantees to investors and/or building capacities of smallholders. In order for TNC participation in agriculture to be a win-win situation, the creation and retention of value added in the host country is important. This can be achieved through contract farming and a number of programmes, such as the promotion of rural entrepreneurs in farming activities. This requires, first and foremost, collaboration between the public sector and TNCs in technology transfer and innovation. One success story in this regard is KATANI.[a] In 1998, this foreign affiliate introduced the Sisal Smallholder and Outgrower (SISO) scheme in five estates in the Tanga Region, involving 2,500 farming families. Knowing that extension services are critical for increasing productivity, the local government in Korogwe appointed KATANI to provide extension services to sisal smallholders in and around the estates, including various forms of technical assistance. In addition, KATANI is collaborating with Mlangoni Agricultural Research Institute, established under the Ministry of Agriculture, to conduct R&D on sisal production.

Source: UNCTAD, based on input from Elibariki Msuya, Kyoto University, Japan.

[a] KATANI is a private company registered in the United Republic of Tanzania. It is owned by African Mpya (90%), a Tanzanian company, and Mkonge Investment and Management Company (10%), owned by private foreign investors. The foreign affiliate has three main objectives: to grow sisal for fibre production, to conduct research aimed at developing new varieties of sisal suitable for various end-users, and to develop and disseminate new technologies in the cultivation and processing of sisal.

Box V.6. Brazil's PRONAF

The Government of Brazil runs "PRONAF" (National Program for the Strengthening of Family Agriculture) to finance farming and non-farming activities (e.g. rural tourism, handicraft production, family agribusinesses) in rural areas. As the programme aims to support rural businesses and make the best use of the family workforce, some conditions are applied for eligibility to the programme. These include residence in or close to the property, no (or limited) use of paid employees and a ceiling on the size of land. The credits it provides should be used to purchase items which are directly related to the production and service activities and contribute to increasing the productivity and income of the rural producer families (e.g. purchase of new machinery, development of irrigation and rural telephony). Credits can be provided not only to individuals but also to groups.

The programme consists of seven financing facilities: Conventional PRONAF, PRONAF Agribusiness, PRONAF Woman, PRONAF Agro-ecology, PRONAF ECO, PRONAF More Food and PRONAF Reconstruction and Revitalization. Each facility has different purposes and financing conditions. For example, Conventional PRONAF provides financial support for expanding or upgrading farming or non-farming services and production infrastructure on rural property or in rural community areas. PRONAF Agro-ecology provides financial support for investments in agro-ecological or organic production systems, while PRONAF More Food is dedicated to financial support for investments in the production of corn, beans, rice, wheat, cassava, vegetables, fruits and milk. The programme offers more beneficial financial conditions for smaller projects. Maturity differs depending on the utilization of the loans. For example, the maturity period for loans for new machinery is 10 years, while for other expenditures it is 8 years.

Source: UNCTAD, based on information from the Brazilian Development Bank (BNDES).

(5) Organizing farmers in the market

Local farmers may hesitate to enter into contractual arrangements with TNCs because of their limited bargaining power vis-à-vis those firms. One means of strengthening the negotiating capacities of farmers is to encourage them to form producer organizations and to negotiate with TNCs collectively (Prowse, 2007). These organizations can also provide a forum for farmers aimed at making TNCs more environmentally and socially responsible. Institutional arrangements for smallholders through producer organizations may also contribute to improving productivity, reducing costs through supply chain linkages, improving access to necessary and affordable inputs such as technologies and credit, and enhancing competitiveness (see box V.7). From a TNC's point of view, producer organizations may reduce transaction costs and help overcome information and communication deficiencies.

In addition, host-country policies should encourage competition among buyers of agricultural produce through appropriate competition laws that prohibit the abuse of a dominant position (see section B.4.b below and chapter IV). To reduce dependence, host-country policies should further envisage, for instance, promotion programmes for the diversification of agricultural production, improved storage facilities to avoid post-harvest losses, and subsidies for the purchase of fertilizers and machinery (Ashoff, 2005).

(6) Strengthening dispute avoidance and resolution

One potential disincentive for TNCs to enter into contractual arrangements with local farmers is the lack of effective dispute settlement procedures. The relationship between TNCs and local farmers is exposed to the risk of conflict; all the more so as specific legal regulations on contract farming scarcely exist (see above). Conflicts may arise, for instance, as a result of the unequal bargaining power of TNCs and farmers, or because each side has a different understanding of the purpose and objectives of their contractual arrangements (Zola, 2004). The delayed payment of farmers and/or their non-compliance, because they can achieve higher prices elsewhere, can also become contentious issues. Theft of assets can be another problem.

Improving domestic courts and accelerating the decision process, including enforcement procedures, can help increase legal security for both partners to an agreement. However, judicial reform efforts may take time, and the costs of legal proceedings related to contract farming arrangements may be higher than the amount in dispute. This underlines the importance of conflict pre-emption strategies. As noted above, policymakers can help prevent conflicts between TNCs and local farmers by developing model contracts. It may also be worthwhile for host countries to consider including more explicit rules on contract farming in their domestic legislation and offering the possibility of recourse to mediation.

3. Addressing environmental and social concerns

a. Sustainable agriculture and environmental policies

Growth in agricultural output in the last few decades has been based largely on intensification of production through greater inputs of fertilizers, pesticides, irrigation, new crop strains and other technologies. Even though this has come at significant environmental costs, agricultural intensification remains important for food security. The main priority for governments, therefore, is to ensure that this intensification does not lead to environmental degradation, for instance by promoting sustainable farming systems. Many industrialized countries have already started this process, and developing countries could learn from their successes and failures. However, policy responses in developing countries are often constrained by inadequate finance for necessary research, a lack of institutions and support services and the need to avoid measures that raise food prices (FAO, 2003c).

TNC involvement in agricultural production can have both positive and negative impacts on the sustainability of agricultural systems in developing countries (see chapter IV). Overall, environmental policies should discourage "bad" behaviour, such as excessive use of inputs, and support "good" behaviour, such as introducing new technologies and management skills that have a positive impact on the environment. When considering policy options, governments need to take into account the fact that TNCs are more often indirectly involved in agricultural production (e.g. through contract farming and through the involvement of other parts of the value-chain) than directly involved (e.g. plantations). So far, environmental policies have been mainly directed at farmers. However, policies should also bear in mind TNCs' responsibilities when they indirectly control production.

Disciplining harmful TNC involvement is critical in cases of environmental damage through mismanagement of agricultural inputs such as fertilizers, pesticides and water. In order to control detrimental effects, it is essential to establish an adequate regulatory framework. However, conventional command-and-control regulation in developing countries has not always worked well in the past. Approaches based on economic factors, such as cost, are often more successful (World Bank, 2000). Governments need to find the right mix between the two types of regulations. Examples of policy options are the introduction of pollution taxes, water-pricing policies and the removal of input subsidies (FAO, 2003c). Many developing countries, for example, provide subsidies for agricultural inputs, often leading to their excessive use and environmental degradation. Since subsidies should rapidly lead to learning more about both input use and benefits, as well as to increased incomes, they should be phased out in due course. Moreover, subsidies often end up in the hands of the TNCs that provide the inputs (Dorward, Hazell and Poulton, 2008). Thus, removing input subsidies, or providing them under strict conditions, may reduce harmful environmental effects.[17]

Biosafety is another area where good government regulation is essential. Many developing countries view biotechnology as important for the future growth of agricultural output, but uncertainty concerning the risks and the lack of proper regulation are major impediments to its current use. Government regulation is also critical to curtail the potential abuse of market power of the few major biochemical TNCs that now control global research, production and distribution of genetically modified organisms (GMOs) for agricultural production. Argentina is one of the first countries to have established a biosafety system for regulatory oversight of genetically engineered agricultural crops. In Africa, the African Union developed the African Model Law on Safety in Biotechnology to help member States fulfil their international obligations under the Cartagena Protocol

Box V.7. Examples of networking and linkages by farmers' organizations in Uganda

UNCTAD's Business Linkages programme, implemented in Uganda but also in other countries such as Argentina, Brazil, the Dominican Republic, Mozambique, Peru, the United Republic of Tanzania, as well as Zambia, has proven to be a viable mechanism for improving business opportunities not just for urban-based SMEs, but also and most importantly, for rural communities engaged in income-generating activities. In Uganda, by transforming farmers into rural entrepreneurs, the programme has had a significant impact on poverty reduction. For example, the linkages pilot project, funded by the Government of Sweden in 2005–2007 and implemented by the Ugandan Investment Authority and Enterprise Uganda as lead facilitator, helped to develop a local source for barley by linking manufacturing and brewing companies with local farmers. It now benefits over 3,000 farmers organized in the Kapchorwa Commercial Farmers Association (KACOFA). Its achievements include increasing farmers' incomes and facilitating the association's move into basic processing stages in the value chain (such as drying, cleaning and packing).

Source: UNCTAD.

on Biosafety and manage related issues.[18] Efficient monitoring and enforcement systems are another essential element of good environmental governance. However, developing countries often lack adequate financial and institutional resources and technical information, which underlines the importance of more capacity-building.

Apart from disciplining harmful involvement, governments may wish to adopt policies that promote sustainable agricultural practices by TNCs. For instance, fiscal and regulatory incentives could be used to promote TNC involvement in sustainable agricultural management (e.g. conservation agriculture or organic production), or TNCs could be encouraged to undertake R&D for sustainable agriculture (see section B.4.d).

Certification schemes for agricultural production have already been developed by many NGOs and TNCs. Governments and development agencies should encourage TNCs to promote the use of organic and fair-trade standards in their relations with local farmers and to strengthen farmers' capacities to meet them, including through adequate monitoring systems. For example, the Government of China encourages TNC participation in the environmentally friendly planting of certain crops, including vegetables, fruits and teas (e.g. by granting tax incentives).[19]

Within the fresh fruit industry, the banana industry leads by far in the use of voluntary certification. Indeed, there are many voluntary certification schemes used in the industry. Among the most common are the Rainforest Alliance, organic agriculture and fair trade labelling schemes. Since organic and fair-trade banana production may fetch higher export prices and help developing-country producers to capture a larger share of the value, it is in the interest of host-country governments to support the adherence of domestic producers to these standards for local markets. However, governments need to consider both benefits and disadvantages (e.g. additional costs to smallholders) before promoting any certification scheme. In particular, certification standards for international markets may hamper local efforts to be more organic.

International assistance and cooperation can contribute significantly to helping countries gain access to information and best practices in sustainable agricultural production. For example, with regard to pesticide use, safety information and technical assistance is provided to developing countries through the International Plant Protection Convention. The design of many national climate change mitigation and adaptation policies may benefit from discussions that are currently taking place at the international level in preparation for the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change, to be held in Copenhagen in December 2009. These discussions relate to issues such as the establishment of international carbon markets and risk reduction policies (FAO, 2008b), but also to policies on sustainable biofuel production by TNCs and the possible use of the Clean Development Mechanism (CDM) for sustainable investment in agriculture.[20] Finally, the international community can provide technical assistance in developing good environmental governance. For instance, the World Bank Environment and Natural Resource Management Programme brings together a number of international initiatives that promote environmental governance in developing countries.

b. Social policies

TNC involvement in agricultural production can have both positive and negative social impacts on a host country (see chapter IV). Their involvement also raises fundamental questions concerning the right to food and related human rights aspects, including the protection of the rights of indigenous peoples (see boxes V.8 and V.9).

Security of land tenure is critical for the majority of the world's population who depend on land and land-based resources for their lives and livelihoods, both from a human rights and economic perspective.[21] However, FDI in agricultural production may deprive local people of their land (see chapter IV).

Host-country policies concerning FDI in agricultural production should give due respect to the land tenure rights of smallholders. A better definition and protection of these rights can contribute to more sustainable management of those resources. However, in many cases it has proved difficult to change informal customary land tenure systems, which have been in existence for centuries, and transform them into a system of more formal rights. In addition, whether land titles or other registration documents improve security of land tenure of local land users depends on the existence of strong local institutions that are able to uphold and defend the rights embodied in those documents (Kanji et al., 2005). If people are dispossessed, they should have access to the courts and the right to compensation. Smallholders could also benefit from reducing incentives for land transfers, for instance by asking higher purchase prices or lease rents, or introducing higher taxes for land use. Transparency is also a critical issue in land deals with TNCs.

Allocating State-owned or underutilized land to TNCs is another critical issue. There should be appropriate safeguards to ensure that such allocations are made using objective criteria. Special preferences could be given to local farmers that depend on such lands for their livelihoods, for example because of traditional farming rights. Transferring land to more

productive uses and users such as TNCs should be encouraged only to the extent that it does not lead to further marginalization of the poorest (de Schutter, 2008).

Another important aspect of social policies has to do with labour conditions. Agriculture is among the most labour-intensive and hazardous industries, and the workforce is often poor and badly organized. However, it includes many child labourers. In numerous developing countries, agricultural workers are poorly protected by national labour laws. In addition, there are problems of illiteracy and ignorance of workers' rights, which may be further aggravated in the context of seasonal, migratory and casual labour.[22] International organizations, such as the International Labour Organization (ILO) and FAO, can assist developing countries that have insufficient domestic capacities for incorporating international labour standards into their national legal frameworks. There are eight ILO Conventions and Recommendations that address labour issues relating specifically to agricultural and rural workers.[23]

c. Corporate social responsibility

An increasing number of TNCs involved in agricultural production provide the public with information on principles that guide their own conduct, including their impacts on their suppliers.[24] Such principles are often included in individual codes of conduct or are based on multi-stakeholder initiatives. The latter can be general initiatives, such as the United Nations Global Compact (UNGC) and the Global Reporting Initiative (GRI), agriculture-specific schemes (e.g. GLOBALGAP and the Sustainable Agriculture Initiative (SAI)), or commodity-specific programmes, for instance for cocoa, palm oil, soy and sugar cane production (see box V.10).[25]

Issues that are frequently addressed in agriculture-related initiatives or codes of conduct are knowledge transfer (e.g. through training and dissemination of best practice information), and community-building activities (e.g. promotion of health care and education). TNCs also seek cooperation with suppliers to improve labour standards (e.g. through certification schemes and

Box V.8. The role of the right to adequate food in guiding investments in agriculture

The right to food is protected as a human right in international law, at least since the adoption of the Universal Declaration on Human Rights in 1948 (G.A. Res. 217 A (III), U.N. Doc. A/810, at 71 (1948)) and, subsequently, the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR) (G.A. Res. 2200 (XXII).

According to the Committee on Economic, Social and Cultural Rights, the body of independent experts monitoring compliance with the ICESCR, "the right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement." It is not primarily about being fed; it is about being guaranteed the right to feed oneself.

Taking into account States' obligations for upholding the right to adequate food therefore has operational implications in at least three ways. First, it requires that efforts to support agricultural production or to establish social safety nets are targeted towards the needs of the most vulnerable, identified through food insecurity and vulnerability information and mapping systems. Second, it requires the establishment of accountability mechanisms to ensure that victims of violations of the right to food have access to independent bodies empowered to control choices made by decision-makers. Although it includes requirements linked to good governance and respect for the rule of law, it goes beyond those dimensions to encompass empowerment and accountability, as well as the participation of those directly affected by the design and implementation of the policies. Third, the right to food requires prioritization: trade and investment policies and choices relating to modes of agricultural production, for instance, should be subordinated to the overarching objective of realizing the right to food. Both the Committee on Economic, Social and Cultural Rights and the FAO Voluntary Guidelines for the Progressive Realization of the Right to Food recommend that States adopt national strategies for the realization of the right to food, in order to ensure that policies in other areas effectively contribute to this end (FAO, 2005).

An approach to investment in agriculture which is grounded in the right to food requires that greater attention be paid in the future to developing forms of agriculture that are more sustainable socially and environmentally, and that would significantly increase yields. The United Nations Environment Programme (UNEP), the FAO and UNCTAD, as well as other agencies have published reports that demonstrate how these models of agro-ecological agricultural production should and could be scaled up. The relationships between these agro-ecological approaches and the human right to food have been established. First, these sustainable farming approaches are adapted to the complex environments where some of the most vulnerable groups live. Second, the management processes that lead to them are generally participatory processes involving the affected vulnerable groups in order to guarantee sustainable results, a strategy consistent with a rights-based approach. Third, these techniques improve the resilience of farming systems to climate change and to high oil prices – two developments which directly affect those who are already the most vulnerable today.

Source: de Schutter (2008). Comments by the United Nations Special Rapporteur on the Right to Food, prepared for UNCTAD.

Box V.9. Protecting the rights of indigenous peoples

There have been instances where investments in agriculture have infringed on the rights of indigenous peoples. For example, cases have been reported in Latin America where a number of agro-industrial corporations, often with the help of security forces, have evicted peasants and indigenous peoples from their lands by force in order to secure the production of soya.[a] Concerns have been expressed that the model of export-oriented agriculture, which often leads to investments in large-scale plantations, has resulted in deforestation as well as hunger, poverty and eviction of indigenous peoples in countries such as Argentina, Brazil, Cameroon, Colombia, Guatemala, Indonesia and Paraguay.[b]

In recent years, increased investments in agrofuels have exacerbated these concerns. Such investments have a direct impact on indigenous peoples, as the strong competition for land and natural resources often results in their eviction and displacement when they lack security of tenure.[c] Recent examples of forced evictions of indigenous peoples for the production of agrofuels have been noted by several NGOs. In Colombia, the NGO, Human Rights Everywhere, documented forced evictions, the appropriation of land and other human rights violations in oil palm plantations, along with the responsibilities of all the actors along the production chain.[d] Another study estimated that if existing investment plans were realized, up to 60 million indigenous peoples would be forcibly evicted from lands which are customarily owned in order to make way for bio-fuel plantations (Tauli-Corpuz and Tamang, 2007).

TNCs, States and the international community can act to prevent the eviction and displacement of indigenous peoples resulting from investment in agribusiness. All TNCs involved in the production of agrofuels must avoid complicity in human rights violations against indigenous peoples.[e] States need to respect, protect and fulfil the right of indigenous peoples to access land which are customarily owned and have security of tenure as a means to sustainable development.[f] Finally, the Special Rapporteur on the Right to Food has recommended that the international community develop guidelines for the production of agrofuels, which include human rights standards and protections for indigenous peoples.[g]

Source: UN-OHCHR and the United Nations Special Rapporteur on the Right to Food.

[a] Document No. (A/62/289).
[b] Document No. (A/62/289) (E/CN.4/2006/44/Add.1).
[c] Document No. (A/62/289) (A/HRC/9/278) (A/HRC/9/23) (A/HRC/7/5).
[d] Document No. (A/HRC/7/5).
[e] Document No. (A/HRC/7/5).
[f] See ICESCR Article 11.2(a); CESCR General Comment 12, ILO Convention 169, articles 13–19, UN Declaration on the Rights of Indigenous Peoples articles 8.2(b) and 10, and A/57/356.
[g] Document No. (A/HRC/9/23).

campaigns against forced labour) and transfer of business knowledge (e.g. accounting, entrepreneurship and creditworthiness).

An examination of the 100 largest food and beverages TNCs shows that approximately one third of the companies specifically address their relationship with farmers in their CSR reporting.[26] In particular the largest TNCs – presumably those with the most public exposure – are the most inclined to underwrite international CSR initiatives, such as the UNGC and GRI. The advantage of such international multi-stakeholder cooperation is that it enables implementation of better coordinated knowledge transfers and community-building activities. In addition, more and improved reporting standards may result from these concerted efforts, including reliable auditing practices.

Although governments normally are not directly involved in CSR initiatives, they can play a major role in promoting CSR practices in agricultural production, and in improving social and environmental standards. This could also benefit the industry's competitiveness and exports (Tallontire and Greenhalgh, 2005). However, governments should also be aware of the limitations of CSR initiatives. Policymakers need to take into account issues such as the actual costs and benefits of these initiatives for smallholders, and the availability of independent auditing systems or official grievance procedures.

4. Other relevant policies

In addition to the above issues, there are several other policy areas relating to a broader economic agenda that are significant determinants of TNC participation in agricultural production and their development impact in the host country. They therefore need to be integrated into host-country strategies aimed at attracting TNCs to agricultural production. Among the most important ones are those related to infrastructure development, competition policies, international trade and research and development (R&D).

a. Infrastructure policies

Infrastructure development is critical for the participation of TNCs in agricultural production, as confirmed by UNCTAD's surveys of IPAs and governments. Arable land may be located far from main transportation routes and major cities where the bulk of food consumers live. Since most agricultural

Box V.10. Sector-specific corporate social responsibility initiatives[a]

The following are examples of corporate social responsibility (CSR) initiatives taken by producers of specific agricultural commodities. In general, these initiatives include projects that promote local production capacities and address issues such as the creation of a learning or information network (e.g. on best practises), labour rights and conditions, certification, transparency and traceability. They often also seek to create a discussion forum or partnership that includes all stakeholders (industry, governments and NGOs).

International Cocoa Initiative (ICI)

The ICI was established in July 2002 to ensure against the use of child and forced labour in the production of cocoa. It promotes the engagement of companies in projects that will promote improvements in the supply chain and in cocoa producing communities. Its board members include representatives from the major chocolate brands, processors and key cocoa-related associations as well as from civil society, including trade unions and NGOs.

Common Code for the Coffee Community Association (4C)

Within the Common Code for the Coffee Community Association (4C), producers, trade, industry and civil society from around the world cooperate to enhance sustainability in the entire coffee industry. This global community seeks to improve the social, environmental and economic conditions for the people who make their living from coffee production. The main pillars of 4C are a code of conduct, participation rules for trade and industry, support mechanisms for coffee farmers, a verification system and the participatory governance structure.

Roundtable on Sustainable Palm Oil (RSPO)

The RSPO is an association created by organizations involved in and around the entire supply chain for palm oil. It seeks to promote the growth and use of sustainable palm oil through cooperation within the supply chain and open dialogue with its stakeholders. The seven industries of ordinary members are oil palm growers, palm oil processors and/or traders, consumer goods manufacturers, retailers, banks and investors, environmental/nature conservation NGOs and NGOs dealing with social and development issues.

Round Table on Responsible Soy Association (RTRS)

The RTRS is an international multi-stakeholder initiative that brings together those concerned with various impacts of the soy economy. It is developing a set of standards for the production and sourcing of responsible soy, and aims to promote the best available practices. The membership consists of representatives from civil society organizations, industry, finance, trade and producers.

Better Sugar Cane Initiative Limited (BSI)

The BSI's main mission is to ensure that current and new sugarcane production is produced sustainably. It focuses on social and environmental issues such as soil productivity, rational water use, effluent management, biodiversity maintenance and equitable labour. The BSI represents collaboration between sugar retailers, investors, traders, producers and NGOs.

Source: UNCTAD, based on information from websites of the ICI, 4C, RTPO, RTRS and BSI.

[a] These examples of sector-specific initiatives are intended to provide a general indication. The selection is based on commodities for which TNCs are more likely to be confronted with CSR issues.

commodities perish quickly if left untreated, transportation between farms, food processing factories and urban areas needs to be fast and reliable. In developing countries, financing for infrastructure development remains well below overall needs (*WIR08*). While governments and ODA have to be the major sources of funding, private investors (including TNCs) can play a supplementary role (chapter IV).

Water policies play a particularly important role in infrastructure development for agriculture.[27] Improved water management, including increased efficiency in irrigation, can achieve "more crop per drop". This means renovating outdated irrigation infrastructure to reduce leakage, using better water storage and delivery techniques, and adopting emerging technologies, such as plant varieties. For instance, since the late 1970s, China has invested 954.5 billion yuan (around $150 billion) for the improvement of the country's irrigation system.[28] Host-country policies should consider whether TNCs involved in agricultural production can make a contribution in this respect, for instance through "build-operate-transfer (BOT)" contract schemes.

b. Competition policies

Agricultural industries are usually composed of different hierarchies of producers, traders, buyers and sellers, which together make up the value chain. Within this value chain, farmers or small and medium producers are the weakest link due to their small sizes and high concentration in the upstream and downstream markets. In the upstream markets, farmers deal with input providers such as seeds and fertilizers. Farmers usually deal with a few national retailers, which buy from big multilateral input provider companies with substantial market power. Since most agricultural markets are national in scope, prices and supply conditions differ from one country to another. In addition, there is market segmentation due to the existence of different seeds for specific climate zones. Considering the large number of farmers who

deal with only a limited number of wholesalers or middlemen – who usually enjoy high profit margins – there is need for appropriate competition policies to deal with potential anti-competitive practices that may arise in these markets. Such practices could be price-fixing or the abuse of a dominant position by major input providers, which will adversely affect farmers' incomes. From a wider competition policy perspective, allowing imports of inputs may exert competitive pressures on dominant companies. From a narrower competition policy perspective, adoption and enforcement of competition laws may be effective in dealing with such practices.

Another important problem with this type of value chain is the link between farmers and buyers of their products. Usually, the buyers and/or traders are a few large TNCs having considerable national and/or global market shares. These companies tend to use their buyer power vis-à-vis farmers but whose market shares are too small to enable them to bargain effectively with large firms. Hence farmers usually face prices much lower than world market prices. However, they may find themselves in a situation where they have to sell at lower prices; if they refuse they have no alternative means to dispose of their products, hence loose income. Poor infrastructure in developing countries, particularly in the least developed countries, contributes to creating large distortions in the market by restricting market entry by new firms. These anti-competitive practices may have serious implications for the livelihoods of farmers in developing countries (chapter IV).

Price setting in agriculture, especially with respect to export products or staple food products, such as for rice in Thailand and for milk in China, is a common policy response to deal with such situations. Another policy response may be to ensure that competition law in countries that depend on agriculture includes provisions on abuse of buyer power and also exempts farmers' associations and/or cooperatives from the scope of competition law. This will allow farmers to be organized, and increase their negotiating power vis-à-vis large TNCs.

c. Trade policies

Trade policies may have a substantial impact on TNC involvement in agricultural production. These policies include tariffs and non-tariff barriers, as well as subsidies (see box V.11 and chapter IV).

Tariffs and non-tariff barriers on agricultural commodities may distort FDI flows in various ways. First, high import tariffs and non-tariff barriers applied to agricultural commodities in the host country may encourage barrier-hopping FDI. Second, high import tariffs in the home country of the investor – or any third country – may discourage export-oriented FDI (i.e. for the production of cash crops). Therefore, it is crucial for developing countries with FDI promotion strategies that tariffs and non-tariff barriers on export commodities in their export markets are kept low. Countries benefiting from lower tariffs than their competitors may want to keep these preference margins in their export markets. Since tariffs are high for agricultural goods, preferential treatment under non-reciprocal agreements (such as the Generalized System of Preferences (GSP)) or reciprocal bilateral and regional trade agreements can further encourage export-oriented FDI in agricultural production. These considerations also apply to developing-country strategies aimed at the production of cash crops through contract farming arrangements involving TNCs. Investments in banana production in Angola and other African, Caribbean and Pacific (ACP) countries, for example, have been encouraged by the duty-free access of ACPs and LDCs to the EU.[29]

Higher tariffs and non-tariff barriers imposed on processed products as opposed to those on raw materials (i.e. tariff escalation) discourage FDI in food processing for exports. It hampers developing countries' diversification into the export of value added, processed agricultural products such as orange juice, cigarettes or instant coffee. Indeed, agricultural exports of many developing countries are highly concentrated in raw materials such as green coffee or cocoa beans. Safeguard measures, such as the special agricultural safeguard mechanism (or, possibly as a result of the Doha Round, a new safeguard mechanism for developing countries) that allows countries to temporarily raise tariffs above bound rates, reduce predictability of market access. This may have a positive impact on barrier-hopping FDI if used by the host country, and a negative impact on export-oriented FDI if used by the home country or any third country.

Agricultural subsidies, including both domestic support measures and export subsidies, are likely to affect the locational determinant of FDI activities. Subsidies in the home country discourage outward FDI to countries offering lower or no subsidies, since they provide a direct price-cost advantage for subsidized producers. Despite existing commitments in the WTO, subsidies in agriculture are still relatively high. Furthermore, loopholes such as permissible indirect export subsidies, for example through export credits or food aid, exist. Production and export subsidies in agriculture were estimated at around $365 billion in 2007 (OECD, 2008d).[30] And developed countries account for the lion's share of agricultural subsidies.

Milk and other diary products receive the largest share of trade-distorting subsidies. Other agricultural commodities that are highly subsidized include apples, barley, corn, cotton, soyabeans, sugar, tobacco, tomatoes, olive oil and wheat. Thus the list of subsidized products includes various cash crops and staple food items for which developing countries

Box V.11. Trade barriers and developing countries' exports of agricultural commodities

Although the Uruguay Round made some progress in global agriculture and trade policy reform, most developing countries are disappointed about the continuing high levels of protection and subsidies for agricultural goods, mainly in developed countries. These measures hamper developing-country exports of agricultural products, and undermine the effective use of their comparative advantages. Most of the trade-distorting domestic support in developed countries is for temperate products such as milk, but subsidies are also high for some products for which developing countries produce substitutes, such as sugar, or for their traditional products such as tobacco, cotton or oilseeds. This, along with the overall long-term downward trend in world market prices observed in the past, and the considerable price fluctuations and demanding standards, has made it difficult for many exporters of commodities to sustain their exports.

A recent World Bank estimate suggests that developed-country agricultural policies cost developing countries about $17 billion each year – a cost equivalent to about five times the current levels of development assistance to agriculture. The benefits for exporting developing countries from liberalization of agricultural policies in developed countries would mainly result from better market access and higher prices for commodities. With full trade liberalization, world market prices would increase on average by 5.5%, while those for cotton would rise by 21% and those for oilseeds by 15%.

Source: WTO Domestic Support notifications; World Bank, 2008: 11; and Ingco and Nash, 2004.

compete with developed countries in the world market or local markets (UNDP, 2003).

Agricultural subsidies in developed countries have contributed to years of underinvestment in this sector in developing countries (World Bank, 2007; UNCTAD, 2008i). Reducing subsidies in developed countries could encourage FDI in poor countries. These subsidies have been the subject of intense and controversial negotiations in the WTO, leading to calls for their substantial reduction or elimination (UNCTAD, 2008j). The fact that many developing countries are net food importers that would be confronted with higher food bills as a consequence of agricultural liberalization complicates the matter. Therefore, effective strategies to mitigate adjustment costs as a consequence of further agricultural liberalization, such as longer repayment periods for export credits, facilitating imports into net food-importing developing countries, and even more important, support for increasing agricultural productivity, especially in LDCs, in order to enhance their agricultural production and their competitiveness are essential.

Another concern that has been raised is that structural adjustment programmes that encouraged low import tariffs, and fiscal austerity and abandoned or weakened the role of marketing boards and commodity stabilization funds for both cash crops and food staples have contributed to low investments in agriculture in developing countries. Therefore, viable alternatives should be put in place (UNCTAD, 2008i).

d. R&D-related policies

Increases in agricultural productivity are closely linked to R&D (see chapters III and IV). Host-country policies aimed at increasing agricultural production through TNC participation therefore need to consider what role – if any – R&D activities of these companies could play. While most TNC activities in this field are still undertaken at headquarters in the home country, there has been a trend in recent years towards shifting R&D partially to developing countries in order to adapt the development of seeds and products to local and regional conditions (e.g. climate, soil, tastes and traditions) (see also chapter III).

An initial question for policymakers is whether they wish to encourage TNCs to undertake agricultural R&D in their countries. The benefits of agricultural R&D derive from its potentially significant contribution to productivity gains and quality improvements; but there are also some risks and uncertainties involved, in particular in the case of biotechnology (see chapter IV). There is strong opposition in some countries to GMOs, because they are associated with damage to the surrounding environment (e.g. harm to biodiversity), an increase in the debt burden of local farmers, and a loss of "traditional" food, not to mention possible, though yet unproven, health threats.

Second, if the host country considers, in principle, that agricultural R&D by foreign affiliates is desirable, it needs to assess whether it is a suitable location for this. An essential condition for a country's capability to benefit from TNC-led R&D programmes is that it should already have some relevant basic R&D capacity in domestic universities, laboratories and research centres, so that they are able to work with and learn from TNC affiliates' innovation activities (Rama and Wilkinson, 2008). Host-country policies aimed at capacity-building may be necessary, and ODA funds and international development assistance agencies can play a significant catalytic role. A number of developing countries have well-established domestic research capabilities in this area, but most other developing countries lag far behind.

Public-private partnerships (PPPs) for R&D that involve TNCs can be a principal policy instrument to foster innovation, to make agricultural R&D more responsive to local needs, to reduce costs and to spread the project risks between the partners involved (chapter IV).[31] However, PPPs may create costs as well as benefits. A major challenge is to connect the knowledge generated in TNCs, universities and national research institutes with the knowledge nurtured and held by farmers themselves, although indigenous knowledge and traditional practices may need to be specifically protected. Policymakers can facilitate these PPPs by providing incentives for innovation through low-interest grants that co-finance both R&D and the pilot testing of innovation. In fostering such PPPs, a typical option is to promote collaboration with international agricultural research institutions, such as the Consultative Group on International Agricultural Research (CGIAR).[32]

Establishing seed and technology centres in the form of PPPs can ensure the required technology transfer and capacity-building to adapt seeds and related farming technologies to local needs and conditions, distribution to local farmers, as well as build long-term indigenous capacities. This is especially important with regard to bringing the "green revolution" to Africa. A sound institutional framework needs to be put in place that supports these strategies, and at the same time addresses the dependency concerns that have arisen with them. Investing in trade (and investment) facilitation is equally important.

Third, if the above conditions of general acceptance of agricultural R&D and sufficient domestic endowments are fulfilled, policies need to aim at ensuring that TNCs' research activities take into account the host country's development needs (box V.12). In this context, the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD, 2009) pointed out that agricultural science and technology should be redirected to ensure that it addresses the needs of smallholders in developing countries, and that it meets the challenge of sustainability, particularly in the context of climate change.[33] This includes, for instance, the issue of which crops to promote. They should be considered in the context of the economic and ecological environments of the host country, and their role in the livelihoods of the poor. Also, problems such as availability and cost of good quality seeds, soil degradation, and post-harvest losses, could be tackled with relatively simple technologies and investments, provided the diffusion of such technologies and such investments are redefined as a priority. International agricultural research projects with substantial payoffs for a large number of beneficiaries should be given priority.

The CGIAR centres have identified examples of "best bets" in agricultural research. These include programmes to revitalize yield growth in the intensive cereal production systems in Asia, ensure productive and resilient small-scale fisheries, address threatening pests such virulent wheat rust, tackle cattle diseases such as East Coast Fever, breed drought-resistant maize in Africa, and scale up bio-fortification of food crops (von Braun et al., 2008). Many of these projects offer considerable opportunities for PPPs in planning and execution, with shared costs, risks and benefits (Spielman, Hartwich and von Grebmer, 2007).

Host-country policies also need to consider the role of intellectual property rights (IPRs) in the promotion of agricultural research. The major forms of IPRs that concern TNCs' activities in agriculture and related R&D are patents on life forms, pesticides, and fertilizers; plant variety rights; and marks, including certain trademarks and geographical indications. It is not evident that agricultural development in the developing world would benefit from a stronger IPR regime, since public sector involvement in agriculture, development assistance, and trade and investment flows may suggest that IPRs are not the most critical factors for promoting innovation in many developing countries (Falck-Zepeda et al., 2008; Lesser, 2003). Furthermore, there is considerable controversy about how TNCs, which are often the holders of the exclusive rights conferred by IPRs, manage their intellectual property (IP) in the field of agriculture.[34] This *WIR* does not take a position as to whether or not such exclusive rights ought to be granted; instead it focuses on the interests that need to be balanced by host countries in order to maximize the contribution of TNCs to a developing country's needs in agriculture.

Host countries that seek to attract TNCs that undertake agricultural R&D need to design an appropriate legal framework for IP, including enforcement of rights. The WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS Agreement) imposes on member countries an obligation to provide a *minimum standard* of protection for a range of IPRs. The actual standard of protection, however, differs significantly among WTO members. Developing countries could use their regulatory discretion under the WTO to adapt their IP legislation to their needs. For instance, they could opt to provide plant variety protection in lieu of permitting the patenting of plants. Such plant variety protection systems are "*sui generis* rights", which can be tailored, for example, by explicitly mandating open access to protected varieties for purposes of adaptation and breeding of new varieties, and granting farmers privileges to reuse seeds, thereby allowing the diffusion of seed technologies.

M&As of biotechnology companies that aim at creating alliances and cooperation across the industry and globally have often led to the concentration of IPRs, which may affect the ability of developing countries to negotiate for access to proprietary

Box V.12. China's policy on foreign investment in R&D in agriculture

The policy of the Government of China on foreign investment in agricultural R&D is embedded in several regulations and policy documents promulgated by relevant central government agencies, especially the National Development and Reform Commission (NDRC) and the Ministry of Commerce (MOFCOM). The country's policy approach to this issue reflects both its general strategy for agricultural research, which seeks to balance developing domestic innovative capabilities with promoting knowledge spillovers from industrial countries,[a] and its evolving policy on inward FDI, which increasingly emphasizes the role of quality FDI in technological progress and sustainable development.

According to the Eleventh Five-Year Plan for Utilizing Foreign Investment announced by the NDRC in 2006, the Government encourages foreign investment in the development of modern agriculture and the introduction of advanced agricultural technology and business management. It focuses on:

- Development of ecological agriculture and high-tech, high-value-added farming;
- Utilization of aquaculture and agricultural waste;
- Development of biomass energy; and
- Development and manufacture of modern farming machinery and agricultural processing equipment.

According to the *Catalogue for the Industrial Guidance of Foreign Direct Investment* amended by the NDRC and the MOFCOM in 2007, the Government encourages foreign investment, in agriculture-related R&D in the following areas:

- Development of new technologies for sugar crops, fruit trees and forage grass;
- Development of sources of organic fertilizers;
- Cultivation of fine strains of trees and new varieties of polyploidy trees and genetically engineered trees.

Source: UNCTAD.

[a] See, for example, Outline for the Development of Agricultural Science and Technology, announced by the State Council in 2001, http://www.peopledaily.com.cn/GB/shizheng/252/5570/5571/20010530/478329.html.

technologies at a reasonable price (see box V.13).[35] This challenge stems largely from patents that confer broad rights over GMOs and plant varieties. To address this problem, developing countries should consider safeguards based on appropriate IP and competition policies in the field of agriculture.

Host-country policies aimed at *export-oriented* agricultural production should pay attention to the protection of trademarks and marks that indicate that certain standards are met. For instance, the Government of Ethiopia successfully registered SIDAMO coffee as a trademark in the United States,[36] and the International Fairtrade Certification Mark guarantees compliance with fair trade standards.[37] If TNCs can establish or acquire already existing trademarks in developing countries, or prove compliance with fair trade standards, they may have a better chance of selling their agricultural products in domestic and foreign markets. The same could be said for the use of geographic indications (GIs),[38] which have become increasingly common in developing countries, and the registration of appellations of origin.[39]

However, IPRs may also have a negative effect on export-oriented agricultural production. For example, Argentinean producers have to pay royalty on a patent that is not granted in Argentina in order to access the United States market where Monsanto maintains a valid patent (Trommetter, 2008). Monsanto has brought a number of unsuccessful border measures and patent infringement claims against European imports of soya beans and animal feeds from Argentina (Baldock and Boult, 2006/2007). Thus host-country policies aimed at export-oriented agricultural production need to consider whether such export activity could be hindered by foreign IP holders.

5. Concluding remarks

Host-country governments can determine the degree of openness to FDI in agriculture and influence the operational behaviour of TNCs by setting specific entry and operational conditions. Where, how and to what extent they involve TNCs in agricultural production should be decided according to their resource needs and their overall objectives of agricultural development. In addition, policies may need to be adjusted over time to reflect changes in domestic capabilities and global markets.

A sound policy and institutional framework for TNC participation in agricultural production, as well as in other stages along the agri-food value chain, is critical for ensuring development gains. Host countries need an overall strategy for agricultural development, covering various areas such as infrastructure development, competition, international trade in agricultural products and agriculture-related R&D. This makes policy coherence important, including effective coordination of the relevant ministries and agencies.

When designing specific policies related to TNC participation in agricultural production, developing-country policymakers should consider how that involvement could best serve their long-term

Box V.13. Licensing practices, and determining competitive rates of royalty payment

Mahyco-Monsanto Biotech is a joint venture between India's leading seed company, Mahyco, and transnational agricultural biotechnology company, Monsanto. The joint venture was one of the first firms to undertake the development of GM cotton in India. India's Genetic Engineering Approval Committee approved the marketing of *Bt* cotton hybrids submitted by the joint venture.

The cotton seeds sold in the Indian state of Andhra Pradesh by this joint venture were costlier than the usual hybrid variety. In 2005, the Government of Andhra Pradesh took the case to the Monopolies and Restrictive Trade Practices Commission (MRTPC). It claimed that for each 450 gm packet of *Bt* cotton seeds purchased by the farmer, 67.6% of the cost constituted royalty payments – much higher than the share paid by farmers in Australia, Brazil, China and the United States – to the parent company, Monsanto. The MRTPC directed Monsanto to substantially reduce the price of the seeds it sells in India. Monsanto reduced the royalty fees of GM seeds by 30% to Rs. 900 per 450 gm in March 2006, but it also challenged the MRTPC order in the Supreme Court. However, India's Supreme Court upheld the order.

Source: UNCTAD, based on Thomas (2007).

development objectives. As noted above, this can be achieved by: (i) creating a conducive environment for attracting TNCs and drawing on their resources, (ii) matching TNC assets with domestic endowments to create positive synergies, (iii) promoting linkages between foreign affiliates and domestic entities (particularly small farmers), and (iv) ensuring that a sufficient proportion of the value added is retained in the host economy, and that the economic benefits are fairly shared among the various stakeholders. At the same time, policymakers need to deal with the possibly far-reaching social and environmental consequences of foreign investment in agriculture. Strategies have to be developed to prevent small-scale farmers from being squeezed out, to secure land tenure for local farmers, to uphold the right to food, and to favour those forms of agricultural production that are environmentally sustainable.

C. Home-country policies to encourage outward FDI in agricultural production

Numerous home countries encourage outward FDI in agricultural production within the framework of their general investment promotion programmes. More recently, a number of home countries have adopted specific strategies to promote outward FDI in order to secure domestic food supply.

1. General promotion policies

The general investment promotion schemes of home countries can be grouped into three main categories: (i) information provision and technical assistance, (ii) fiscal and financial incentives, and (iii) political risk insurance (*WIR95*).

The IPA survey conducted by UNCTAD (see section B.1.c) revealed that only a small minority of participating agencies (11%) promote outward FDI in agricultural production (table V.2), and mainly those from developed countries and Asia. Agricultural industries that are most frequently targeted for outward FDI are cereals, fruits and vegetables and animal products. The main goal of developed-country IPAs is to assist their TNCs to further globalize their production chain. IPAs from other regions promote outward FDI because of limitations in their own national production capabilities, or to benefit from opportunities to obtain agricultural land abroad.

The most common forms of support are financial assistance and provision of information to companies investing in overseas agricultural production. For instance, in China, the Special Fund for Foreign Economic and Technical Cooperation, which is administered by the Ministry of Commerce, provides financial support (sometimes in connection with its ODA) to support outward investment and agricultural projects. The Government of China also makes funds available for pre-investment expenses, such as costs of feasibility studies or surveys (Freeman, Holslag and Wei, 2008). Similarly, the Government of the Republic of Korea provides loans for companies that invest in overseas agricultural development,[40] and information about potential investment regions, including their natural environment, logistics and agricultural potential (Republic of Korea, MIAFF, 2008).[41] Beyond direct government measures, public financial institutions and sovereign wealth funds (SWFs) – such as the Saudi Industrial Development Fund (SIDF) and the Abu Dhabi Fund for Development (ADFD) – can play an important promotional role (Woertz, 2009).

2. Challenges related to overseas agricultural production to secure food supply

In recent years, some food-importing countries, such as the Republic of Korea and some GCC countries, have adopted a policy of developing overseas agricultural production to secure food supply (chapter III and box V.14.; Woertz et al., 2008;

Table V.2. IPAs that actively promote outward FDI in agricultural production, by country group/region
(Percentage of respondents to UNCTAD survey)

Home region	Yes	No	*No response*
Total	11	82	6
Developed	17	83	-
Developing	12	87	-
Africa	13	67	20
Asia	17	83	-
Latin America and the Caribbean	-	92	8
Transition economies	-	100	-

Source: UNCTAD–WAIPA Survey of IPAs, February–April 2009.

Kim Yelie, 2008; Grain, 2008b). These policies were initiated by food price hikes (Woertz et al., 2008), and intensified following some recent restrictions on food exports by supplier countries. Such policies, if designed and implemented properly, can help curb food price inflation by increasing the global production of food. Furthermore, participation by new investors can alleviate distortions in the international food market, which is dominated by a few agriculture exporting countries and large agribusiness TNCs (chapter III). However, concerns have also been raised that overseas agricultural production may aggravate food shortages in host countries and deprive local farmers of land (chapter IV).

Home-country policies aimed at overseas agricultural production to secure food supply are not a new phenomenon. For example, a number of Arab countries started to explore overseas food supply sources as early as 1973, as a reaction to the United States' threat to boycott food delivery to the region during the oil crisis at that time. To secure food, Gulf countries planned to develop Sudan as a bread basket to meet their needs (Woertz et al., 2008). Accordingly, the Arab Authority for Agricultural Investment and Development (AAAID), established in 1976, is headquartered in Khartoum, Sudan.[42]

Some earlier investments in overseas agricultural production for food security, such as those undertaken by the Republic of Korea from the 1960s to the 1990s, and by some Arab countries in the 1970s, faced difficulties for various reasons (see chapter IV). One particular challenge arises from the target regions. While established agricultural regions such as North America and Europe have advantages, including good infrastructure, developed rules of law and safe FDI environments, the downside for foreign investors is that they have dominant agricultural traders controlling storage and transportation facilities in their region. In contrast, less developed regions may suffer from poorer infrastructure, an unreliable supply of materials, lack of quality inputs, political instability and institutional shortcomings. Although powerful agricultural traders have a weaker presence, several of these target regions are currently net food importers (Woertz et al., 2008), and exporting food may have serious socio-political consequences.

In addition, there is a risk of the host country imposing an export ban during a food crisis. Under GATT/WTO rules, export restrictions can be applied temporarily to prevent critical food shortages, subject to certain conditions (see GATT Article XI and WTO Agreement on Agriculture, Article 12). As at July 2008, more than 40 countries had imposed export controls on commodities (HLTF, 2008).

3. Policy implications

Home countries should assess carefully the possible pros and cons of a policy strategy on outward FDI in agricultural production aimed at securing domestic food supply *versus* a trade-oriented approach. For countries where climate, soil and water conditions prevent the cultivation of sufficient agricultural commodities, outward FDI in agricultural production may be an appealing alternative. However, home countries need to consider whether this is more advantageous than importing agricultural products from third-party producers. There can be significant benefits in gaining control over production, as well as cost savings. On the other hand, there is a risk that a food crisis in the host country could cause it to restrict exports of agricultural commodities, which

Box V.14. The King Abdullah Initiative for Saudi Agricultural Investment Abroad

Launched in January 2009, the King Abdullah Initiative for Saudi Agricultural Investment Abroad (KAISAIA) "aims at contribution to realizing national and international food security, building integrative partnerships with countries all over the world that have high agricultural potential to develop and manage agricultural investments in several strategic crops at sufficient quantities and stable prices in addition to ensuring their sustainability."

Investments by this initiative are based on a number of principles and criteria. For example, the investment should be long-term, through ownership or long-term contracts; investments should take place in countries with "promising agricultural resources" and "encouraging government and administrative regulations and incentives"; the investors should be allowed to select which agricultural crops to grow; and bilateral agreements should be signed with the concerned countries to ensure achievement of the investment objectives. (For further details see www.mofa.gov.sa).

Source: Ministry of Foreign Affairs, Kingdom of Saudi Arabia.

would defeat the purpose of the overseas investment. These considerations call for the setting up of broader strategies to secure food supply at home, for instance by diversifying outward FDI to different host countries. Outward FDI-oriented policies aimed at increasing food security in the home market should also go hand in hand with low trade barriers in the home country, at least vis-à-vis imports from the host country for the corresponding products.

Overseas agricultural investment is a risky business and it can take a long time to deliver the desired outcomes. This makes thorough pre-investment research vital.[43] Even after an initial in-depth study, a step-by-step approach is advisable as it is difficult to design a "perfect" plan from the start.

As discussed above, many target countries for investment in agricultural production aimed at supplying home-country markets are net food importers. Exporting food from those net importing countries can cause social disturbance. It has been suggested that a set of principles be developed for host countries and foreign investors, including rules on transparency of negotiations, respect for existing land rights, sharing of benefits, environmental sustainability, national food security and the human rights challenge (von Braun and Meinzen-Dick, 2009; de Schutter, 2009).

Home countries should also consider whether overseas food production in the form of contract farming could be a viable alternative to FDI. One specific approach could be to involve SWFs – possibly through intermediary companies – in the contract farming arrangements. These funds have considerable financial resources that could be made available for agricultural development. Several of them are headquartered in countries that are actively seeking host countries for agricultural production. Investing in agricultural production may contribute to diversifying risks and be an alternative to placing capital in financial institutions where some SWFs have realized heavy losses due to the global economic crisis.

Contract farming arrangements could create a win-win situation for all partners involved, provided that appropriate bargaining conditions exist, with all parties capable of protecting their essential concerns in the negotiation process. Contractual links can enable foreign investors to establish long-term relationships with local professional farmers in the host country to secure food supply. In addition, the contract farming option reduces the production risks associated with the FDI option, and avoids potentially strong opposition in the host country to foreigners gaining direct access to agricultural land. Local farmers could substantially benefit from contract farming through the transfer of capital, technology and know-how and a stable source of income. This income generation could contribute to gradually reducing poverty in the host country and enable farmers to move to higher value activities. If local farmers have a vested interest in maintaining their contractual relationship, the home country and its investors could be better protected against interference by the host-country authorities. However, it is essential that contract farming arrangements are not concluded at the expense of sufficient food supply to the host country's population.

Mixed models are also possible. There are examples of large-scale commercial units, often privatized former State farms, owned and operated by an international investor with links to smallholders in a symbiotic relationship, whereby the smallholders sell their output under contract to the large company while receiving support in the form of agreed sales, credit and technical assistance. Sugar investments in the United Republic of Tanzania are one example of such a development, and in Zambia, an objective of the government policy is the creation of a similar model based on the so-called "farm blocks" concept (Hallam, 2009).

In addition to focusing on agricultural production itself, consideration should be given to investing in trading firms and in logistical infrastructure such as ports. Such investments not only offer the opportunity to lower food procurement costs by cutting out middlemen and agency fees; they could also improve food security in a food crisis by facilitating access to international agricultural markets (Sung, 2008; Woertz et al., 2008).

D. International policies related to FDI in agricultural production

1. Major international policy initiatives

Agriculture and food security are high on the international agenda.[44] A major development was the establishment of the United Nations High-Level Task Force on the Global Food Security Crisis (HLTF) in April 2008. The HLTF elaborated a Comprehensive Framework for Action (CFA) which presents two sets of action: meeting immediate needs and building resilience. Under the latter, the CFA aims at stimulating public and private investment in agriculture by calling for the creation of a more conducive climate for investment. The Leaders' Statement on Global Food Security adopted at the G-8 Summit in Hokkaido in July 2008 contains a commitment to reverse the overall decline of aid and investment in agriculture, and calls for a Global Partnership on Agriculture and Food Security (G-8, 2008). At the G-8 Summit in L'Aquila in July 2009, countries represented made a commitment towards the goal of mobilizing $20 billion over the next three years for a comprehensive strategy for sustainable global food security and for

advancing by the end of 2009 the implementation of the Global Partnership for Agriculture and Food Security. On the occasion of the L'Aquila Summit, the International Fund of Agricultural Development (IFAD) stressed that the world food security issue cannot be resolved without long-term investment in agriculture.

At the regional level, recognizing that agriculture is crucial to Africa's economic and overall development, African leaders initiated, within the framework of the New Partnership for Africa's Development (NEPAD), the Comprehensive Africa Agriculture Development Programme (CAADP) to boost agricultural productivity in Africa. In Asia, at the 14th ASEAN summit in February–March 2009, ASEAN leaders adopted the ASEAN Integrated Food Security Framework (AIFS) and the Strategic Plan of Action on Food Security in the ASEAN Region (SPA-FS) 2009–2013.

The focus of the FAO strategy on involving TNCs in agriculture has been on agribusiness and the agro-industry. The FAO's support to developing countries is delivered through various forms of technical assistance to recipient governments and to farmers, with a focus on capacity-building, information dissemination, policy advice and skills development. Through its Investment Centre, the FAO focuses on promoting investment in agriculture by assisting developing countries to identify and formulate effective and sustainable agricultural policies, and by designing and implementing specific programmes and projects.

The Multilateral Investment Guarantee Agency (MIGA) and the International Finance Corporation (IFC) promote FDI in agricultural production in developing countries by providing guarantees against various kinds of political risks in the host country, or by providing financial or technical support.

The recent G-8 pledge to devote substantially more ODA to agriculture in developing countries and the various regional initiatives to improve the institutional framework for investment in agriculture are encouraging signs. However, still more could be done, especially with regard to addressing the concerns caused by the recent surge in large-scale land acquisitions by foreign investors in agricultural production. One particular challenge relates to the development of international principles for such investments (mentioned above), highlighting the need for transparency, stakeholder involvement and sustainability, and stressing concerns for domestic food security and rural development.

2. International investment agreements

International investment agreements (IIAs) promote foreign investment, which would include investment in agricultural production, by protecting it against certain kinds of political risks in the host country. However, undertaking international commitments in a highly regulated and sensitive industry like agriculture, where government policies may be controversial and subject to change, also carries the risk of reducing the policy space of host countries.

One means for host countries to preserve regulatory discretion is the use of reservations in IIAs, in particular with regard to the entry of FDI. An UNCTAD survey of IIAs that include establishment rights revealed that reservations relating to foreign investment in agriculture are common, especially in free trade agreements (FTAs) with investment chapters. Out of a total of 150 examined bilateral investment treaties (BITs) and FTAs with pre-establishment rights (covering 88 countries), 85 IIAs (56%) included national treatment reservations relating to agriculture or the use and ownership of land.[45] A similar host-country approach consists of reserving the right to adopt or maintain any measures with regard to the approval of agricultural projects.[46]

IIAs usually establish various investment protection obligations for host countries. Several of these are particularly relevant for TNC participation in agricultural production.

Most IIAs include *immovable property* (land) and *intellectual property* in their definition of investment. Intellectual property is relevant with regard to the transfer of technology and R&D activities, for instance in connection with GMOs, but also pesticides and fertilizers. Some IIAs even go so far as to cover plants as a protected investment.[47]

A core provision in most IIAs is the principle of *fair and equitable treatment*. The meaning and content of this provision is somewhat ambiguous and, as shown below, has given rise to several investment disputes relating to agriculture. Arbitration practice in recent years has tended to interpret the article in a broad manner, protecting the "legitimate expectations" of foreign investors. As a highly regulated as well as politically and socially sensitive industry, agriculture is particularly exposed to government intervention, which foreign investors might consider as being contrary to their expectations. This applies to a broad range of host-country regulations. One example relates to subsidies that governments pay to producers. An elimination or reduction of such State assistance may be perceived as unexpected by the foreign investor, and therefore considered as unfair treatment. Other examples relate to export taxes or other restrictions that adversely affect investors' operations, or the introduction or modification of standards in agricultural production relating to safety, hygiene or other areas of health.

Expropriation of land from foreign farmers has been an issue repeatedly raised in connection with host-

country policies on land redistribution. In addition, the examples cited above might become relevant with regard to indirect expropriations (i.e. situations where the foreign investor's property rights remain formally untouched, but where the host-country measure has a similar effect as a formal expropriation).

Equally pertinent is the issue of protection in case of *war and civil strife*. History is replete with examples where disputes about control over land have caused wars, revolutions or civil unrest. Social unrest in a country may result in farm occupation, the expulsion of farmers from their homes, the destruction of crops and other acts of physical violence. IIAs containing a clause on war and civil strife usually oblige contracting parties to grant non-discriminatory treatment to foreign investors with respect to eventual compensation payments by the host country.

Numerous IIAs contain a provision that explicitly permits contracting parties to take any measures aimed at protecting public *health and safety*. This clause might shield host countries from investor claims, for instance in connection with the introduction of new regulatory standards for agricultural production. Likewise, many IIAs include a *national security exception*, which may become important if a contracting party rejects a foreign investor because it considers agricultural production as a security-sensitive industry.

Foreign investment in agricultural production often has a *trade link*. This is most obvious if agricultural production is destined for export purposes or if the production process necessitates the import of certain technological inputs. This makes it relevant for IIA negotiators to consider including a trade component, particularly in the context of bilateral or regional FTAs, or other agreements on closer economic cooperation. A combined investment and trade agreement can make the host country more attractive for foreign investors in agricultural production, but it also increases the host country's obligations.

Compared to other economic industries, few international investor-State disputes have arisen in agriculture and related industries. There were 19 known international arbitration cases involving foreign investment in the agricultural value chain by the end of 2008.[48] Six of these cases involved agricultural production (cultivation of plants, crops, fruit, vegetables or cattle).

The disputes have focused on a number of IIA provisions, in particular the principle of fair and equitable treatment, the standard of full protection and security, national treatment, expropriation and State responsibility. The known total amount of compensation sought by the foreign investors is approximately $1.1 billion.

IIA negotiators should be aware of the potential consequences of an investment agreement for agricultural policies. A number of issues deserve special attention by developing countries. For example, if a developing country decides that foreign investors are welcome for the production of certain agricultural commodities, it could reflect this in specific investment promotion provisions of the IIA. This approach requires that host countries identify those sub-sectors for which foreign investors should be specifically targeted (UNCTAD, 2008h). One example is the Economic Partnership Agreement (EPA) between the EU and the member States of the Caribbean Forum (CARIFORUM), which calls for a dialogue, exchange of information, experiences and best practices for the promotion of investment in the CARIFORUM agricultural industry, including small-scale activities.[49]

Another issue relates to linkages between investment and trade policies. If developing countries seek the involvement of foreign investors in agricultural production for export purposes, trade liberalization and facilitation become significant FDI determinants. In this case, host countries should aim at the conclusion of IIAs that include trade provisions, as in a number of recent EPAs or FTAs.

IIA negotiators also should pay attention to the increasing risk that developing countries face of being drawn into an investor-State dispute. As shown above, core IIA provisions, such as fair and equitable treatment, full protection and security, and protection in case of expropriation, have become the subject of investment disputes in agriculture. Developing countries should therefore consider a clarification of these clauses in future IIA negotiations, including a possible narrowing of their scope of application.[50] Developing countries could also benefit from exception clauses in IIAs, relating to such areas as public health and national security.

The legal protection of local landowners' rights often lags considerably behind that offered to foreign investors, as noted earlier. This may have significant adverse consequences for land security, especially for small-scale local farmers who run the risk of being easily dispossessed to make way for foreign investors. Subsequent governmental actions to protect local land titles could become the subject of investor-State disputes in the future if they interfere with rights granted to foreign investors. These concerns should be adequately addressed through the device of the development dimension in the IIAs.

E. Conclusions and policy options

Developing countries face many challenges in promoting agricultural production. One strategy to cope with these challenges is to use the advantages and resources of TNCs by involving them in the

industry. However, expectations concerning the level of FDI and its possible benefits should be realistic, particularly for such products as staple food crops. In addition, the existing institutional environment in numerous developing countries limits, to varying degrees, entry by TNCs, and not all host-country governments may be sufficiently equipped to attract TNCs.

Host-country policies concerning TNC participation in agricultural production have changed over time, and vary between countries, commodities and type of TNC involvement. There is no "one-size-fits-all" solution, as policies are based on different combinations of individual factors, such as the special characteristics of agricultural commodities, the type and objective of production (staple food for domestic food supply or cash crops for export), the geographic and agro-climatic characteristics of locations, and the socio-political and cultural environment.

The main challenge for host-country governments is how to maximize the development benefits of TNC participation in agricultural production, while minimizing the costs. Responding to this challenge involves a broad and complex agenda that extends well beyond FDI policies per se, and may require trade-offs with various other policy objectives. The involvement of TNCs in agricultural production may have far-reaching social and environmental implications for a host developing country. Host-country governments need to assume the main responsibility in this regard, but the role of other stakeholders – civil society and international organizations – should not be neglected, in addition to that of the TNCs themselves. A comprehensive host-country strategy towards TNC participation in agricultural production also requires integrating policies related to such aspects as infrastructure, competition, trade and R&D.

Given the concerns that exist in numerous countries in respect of FDI in agricultural production, and TNCs' generally limited interest in this activity, contract farming may in many cases be a promising alternative. This mode of TNC involvement can significantly contribute to raising agricultural production and productivity, and to economic development in general. Provided that contract farming schemes are based on fair and informed bargaining, and help create mutually beneficial linkages and allow domestic producers to become a part of larger food value chains, it is in the interest of host countries to support the participation of local farmers in these arrangements.

In recent years, an increasing number of food-importing countries have started pursuing a strategy of overseas agricultural production to secure food supply at home. Such strategies can contribute to creating value and generating export revenues in the host countries, but they can also have negative consequences for food supply in the exporting country, including depriving local farmers of land. However, a win-win situation can emerge if the institutional arrangements are carefully designed, and if the legislative framework and investment contracts ensure a fair sharing of the benefits between host countries and foreign investors.

IIAs can be an additional means to promote TNC participation in agricultural production, but their careful formulation is crucial with a view to striking a proper balance between the obligations to protect and promote foreign investment, on the one hand, and policy space for the right to regulate, on the other. This is particularly important in the case of agriculture, as the sector is highly regulated and sensitive, where government agricultural policies may be controversial and subject to change, and the countries' social and environmental policies are rapidly evolving (including in line with various international standard-setting processes).

Based on the above considerations, a number of policy recommendations can be made:

(1) Developing countries should *strategize agricultural production* and the food industry and consider what role TNCs could play in implementing their strategies. For this purpose, they may wish to:
   - Establish a multi-stakeholder mechanism, with the effective participation of smallholders, to engage in open discussions concerning the potential role of TNCs in agricultural production and its possible implications.
   - Adopt an integrated policy approach that comprises not only agricultural and investment policies, but also other crucial policy areas such as infrastructure development, competition, trade and R&D.
   - Identify environmental and social concerns associated with TNCs' involvement in agricultural production, and address them in the overall policy framework.
   - Monitor the impact of TNC involvement in agricultural production.
   - Consider (especially in the case of developing countries with small markets) regional economic integration that could help attract TNCs in agricultural production by providing larger regional integrated markets.

(2) Developing countries should pay particular attention to the *promotion of contractual linkages* between TNCs and local farmers so as to enhance farmers' productive capacities and help them benefit from the global value chain. In

this context, host-country strategies should seek to:

- Review the whole value chain with a view to identifying and addressing bottlenecks in successful contractual cooperation between TNCs and local farmers.
- Develop model contracts for contract farming, ensuring they are socially and environmentally sustainable.

(3) Developing countries could also consider whether they can benefit from the renewed interest of numerous home countries in *FDI in staple food production*. Developing countries aiming to attract such FDI may wish to:

- Review their FDI entry regulations and land-use policies (e.g. by clarifying land-use rights and streamlining administrative procedures), while ensuring adequate and effective protection of land rights of local farmers and communities.
- Strengthen the role of IPAs with regard to attracting FDI in agricultural production.
- Conduct an environmental and social impact assessment of the specific investment project before admitting FDI. Decision-making should be transparent and open to public scrutiny.
- Develop a checklist of issues for host countries to negotiate with foreign investors in order to ensure development benefits for the host country. (Key points for consideration are listed on page 172 above).
- Identify priority areas for agricultural R&D that are important for the host country's development needs, and promote public-private partnerships. Seed and technology centres are ideal examples of such a priority. First, they would adapt relevant seed and farming technologies to make them suitable for, and available to, smallholders. Secondly, a PPP is an ideal way of transferring and diffusing the relevant knowledge between partners to build and deepen indigenous capacity.

(4) Recommendations in respect of country strategies related to *outward FDI to secure food supply*:

- Start with an assessment of the potential advantages and risks of an FDI-driven strategy compared to a trade-based approach. Consider whether contract farming or mixed approaches could be a useful alternative to FDI.
- Consider, in addition, investing in local infrastructure, such as trading houses, harvesting facilities, roads and ports, which can bring benefits to both agriculture and the overall economy.

(5) Recommendations related to the *international community*:

- Reduce import tariffs, non-tariff barriers and agricultural subsidies in developed countries to encourage FDI in poor countries.
- Consider the development of an internationally agreed set of core principles for large-scale land acquisitions by foreign investors in agricultural production. These principles should highlight the need for transparency, respect for existing land rights, protection of indigenous peoples, the right to food and social and environmental sustainability.
- Consider the use of ODA funds in the context of agricultural development strategies that combine public investments with maximising benefits from TNC involvement.

Notes

1 In March–May 2009, UNCTAD conducted a questionnaire-based survey of all UNCTAD Member States on foreign investment policy relating to agricultural production. The following 35 countries responded: Albania, Angola, Argentina, Azerbaijan, Bosnia and Herzegovina, Colombia, Costa Rica, Ecuador, El Salvador, Ethiopia, Fiji, Finland, Georgia, Ghana, Greece, Jamaica, Jordan, Kyrgyzstan, Lebanon, Lithuania, Malawi, Mauritius, Mexico, Oman, Portugal, Rwanda, South Africa, Sri Lanka, Suriname, Saint Vincent and the Grenadines, the United Republic of Tanzania, Tonga, Turkey, Ukraine and Zambia.

2 According to UNCTAD's survey of governments, approximately 70% of the responding countries reported not imposing any specific entry conditions on TNCs that plan to invest in agricultural production.

3 Long-term land lease period is usually 50–99 years, sometimes including an option for renewal.

4 This is confirmed by the results of UNCTAD's Government survey.

5 A total of 63 questionnaires were completed by members of WAIPA, representing an overall response rate of 30%. A geographical breakdown of the responses shows a fairly similar distribution to that of the WAIPA membership.

6 Of the total respondents, 22% indicated that their policies did not give priority to the agricultural sector. Among developed-country agencies, the share was much higher (44%). Only 5% of all IPAs indicated that another government agency was taking care of promotional activities, while none indicated that investment was prohibited.

7 Among IPAs from developed countries, 17% indicated that attracting FDI into agriculture is now more important than three years ago and 28% expected this to continue for the next three years.

8 Only a few respondents cited food security as a motivation for attracting FDI.

9 For instance, four agencies in developed countries said that barriers overall were low, and that policy uncertainty and macroeconomic and trade barriers were their major focus (both 11% of respondents). In contrast, some of the

agencies from Asia and Latin America and the Caribbean also mentioned these issues, but none of the IPAs from Africa did so.

10 See http://www.ghanalap.gov.gh/privatecontent/File/lands%20commission%20folder/ Land%20Bank%20Directory%202nd%20edition.pdf.

11 International aspects of investment protection are discussed in section D.2.

12 The suggestion had been made by the Government of Japan. It aims at establishing a set of principles for both host countries and foreign investors, covering the following issues: Transparency and accountability, respect for rights and benefits of local population, developmental and environmental impact assessment, food security and market principles (see http://mofa.go.jp/policy/economy/fishery/food_sec0907.html).

13 See for example, India's State Agricultural Produce Marketing (Development and Regulation) Act (APMA Model Act) of 2003, Chapter VIII, No. 38, Viet Nam's Decision No. 80/2002/Qd-TTg of 24 June 2002 and Thailand's Standard Contract Farming Agreements of 1999.

14 For example, in the United Republic of Tanzania, the planned Guidelines for the Marketing and Private Sector Development Component in the Agricultural Sector Development Programme also cover contract farming (see: www.actanzania.org/index.php?option=com_content&task=view&id=119&Itemid=39).

15 See https://www.landbank.com/about.asp.

16 *Source:* Field study undertaken by UNCTAD in Heze in April 2009.

17 For instance, in recent years there has been a growing interest in "smart subsidies particularly in Africa. These subsidies are innovative input delivery systems that are intended to reduce common problems facing subsidy programmes and to extend their benefits (Dorward, Hazell and Poulton, 2008).

18 The Protocol on Biosafety is an international treaty governing the movements of living modified organisms (LMOs) resulting from modern biotechnology from one country to another. It was adopted on 29 January 2000 as a supplementary agreement to the Convention on Biological Diversity and entered into force on 11 September 2003. The Protocol imposes upon signatory countries the responsibility for ensuring that activities involving GMOs are conducted in a manner that does not pose a risk to biodiversity or the environment. It is intended to increase transparency on the nature of traded goods by stipulating requirements for advanced informed agreement on the part of the importing country. This entails undertaking a scientifically sound risk assessment of the GMO. Accordingly, it calls for the development of regulatory frameworks and a capacity for risk assessment in countries that still lack them (Burachik and Traynor, 2002).

19 See *Catalogue for the Industrial Guidance of Foreign Direct Investment* (amended in 2007).

20 For instance, land use is currently excluded from the CDM, with the exception of afforestation and reforestation projects. The United Nations Convention to Combat Desertification (UNCCD) has suggested expansion CDM coverage of agricultural land (see http://www.fao.org/fileadmin/user_upload/foodclimate/statements/unccd_kalbermatten.pdf).

21 Guideline 8.10 of the FAO Guidelines on the Right to Food (see also box V.8) emphasizes the need to promote and protect the security of land tenure, especially with respect to women, poor and disadvantaged segments of society, through legislation that protects the full and equal right to own land and other property, including the right to inherit; and it recommends advancing land reform to enhance access for the poor and women. Securing land rights also makes economic sense: it has been widely documented that providing land owners or users with security against eviction enhances their competitiveness by encouraging land-related investment, and lowers the cost of credit by increasing the use of land as collateral. *Source*: comments provided by the UN Special Rapporteur on the Right to Food, Mr. Olivier De Schutter.

22 The ILO Declaration on Fundamental Principles and Rights at Work: available at http://www.ilo.org/public/english/protection/safework/agriculture/agrivf01.htm#nl.

23 (http://www.ilo.org/public/english/dialogue/sector/sectors/agri/standards-rural.htm).

24 Although in some cases private standards only reflect host-country standards.

25 The *United Nations Global Compact* is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labour, environment and anti-corruption. *GRI* promotes and develops a standardized approach to reporting to stimulate demand for information on sustainability, and can be used as a benchmark for assessing organizational performance with respect to laws, norms, codes, performance standards and voluntary initiatives. Adherence to it demonstrates organizational commitment to sustainable development and enables comparison of organizational performance over time. *GlobalGap* is a partnership between agricultural producers and retailers to establish certification standards and procedures for good agricultural practices (GAP) (see also chapter IV, box IV.11). The *SAI Platform* is an organization created by the food industry to communicate worldwide and to actively support the development of sustainable agriculture among the different stakeholders in the food chain. Other relevant initiatives include the SA8000, ISO 14001, the Ethical Trade Initiative (ETI) and various international framework agreements.

26 The research made an assessment of CSR strategies and reporting based on available online corporate documents such as annual reports, business codes and sustainability reports, and especially focused on adherence to relevant UNGC and GRI principles. This information was obtained from the Agrodata database of UMR MOISA, Montpellier, and company reports.

27 Some 40% of global food is produced on irrigated land, and significant additional investment in irrigation systems will be needed in the future (FAO, 2007b).

28 Xinhua News Agency.

29 In the current Doha Round the treatment of preferences is a controversial issue among developing countries especially because of different tariffs for tropical products.

30 This includes government support and indirect support such as transfers from consumers to producers through higher prices due to boarder measures.

31 PPP can be defined in this context as any research collaboration between public and private entities in which the partners jointly plan and execute activities with a view to accomplishing agreed objectives, while sharing the costs, risks and benefits incurred in the process (Spielman, Hartwich and von Grebmer, 2007).

32 The CGIAR is a worldwide network of agricultural research centres with a permanent secretariat, supported by the World Bank, with the FAO, UNDP and IFAD as co-sponsors. It now has 64 governmental and non-governmental members and 15 research centres. It is a centre-driven coalition to promote collective action among the centres and between the centres and their partners.

33 The IAASTD process was initiated in 2002 by the World Bank in open partnership with a multi-stakeholder group

of organizations, including FAO, GEF, UNDP, UNEP, WHO and UNESCO and representatives of governments, civil society, private sector and scientific institutions from around the world. The objective was to evaluate the impacts of past, present and future agricultural science and technology on 1) the reduction of hunger and poverty, 2) improvement of rural livelihoods and human health, and 3) equitable, socially, environmentally and economically sustainable development.

34 See, for instance, the extensive literature surrounding the Canadian Supreme Court case of *Monsanto Canada Inc. v. Schmeiser* [2004] 1 S.C.R. 902, 2004 SCC 34.

35 Taking 18 major agrochemicals' country markets as a proxy for the global market, it is estimated that 77% of the global agrichemicals are dominated by six players (as of the year 2004): Bayer (Bayer Crop Science), Syngenta, BASF, Dow (Dow AgroSciences), Monsanto and DuPont (chapter III).

36 USPTO, Registration Number, 3381739, 12 February 2008. Starbucks had abandoned its original application dated June 2004 for the registration of trademark SHIRKINA SUN-DRIED SIDAMO, application serial number 78431410. Starbucks confirmed that the coffee beans are sun-dried and originate from the Sidamo region of Ethiopia.

37 Fair trade standards are set by Fairtrade Labelling Organizations International (FLO).

38 For example, Café de Colombia is a registered GI of coffee in the EU originating from Colombia. There are 10 pending applications originating from China, and 2 applications from India that request the registration of Darjeeling tea and Kangra Tea.

39 World Intellectual Property Organization (WIPO), Agreement for the Protection of Appellations of Origin and their International Registration, Lisbon 1958, and Lisbon System for the International Registration of Appellations of Origin. For instance, Mexico has registered Café Chiapas, and Café Veracruz as appellations of origins.

40 The Republic of Korea, Ministry for Food, Agriculture, Forestry and Fisheries, Public Notice, No. 2008-355.

41 For details, see http://oai.ekr.or.kr/ekr/oai.html.

42 As at 2001, the AAAID had invested about $352 million: 38% of that went into plant production, 21% in animal production, 37% in agricultural processing, 2% in inter-Arab trade development and another 2% in agricultural services. Most of the AAAID's activities are directed to Sudan (AAAID, 2002).

43 For example, failures by Korean companies in the past mainly resulted from insufficient research (Kim Yong-taek and Bae-sung Kim, 2007), which is why the Government of the Republic of Korea opened an Information Centre for Overseas Agricultural Investments in 2008.

44 This section only deals with developments at the multilateral and regional – not the bilateral – level.

45 Reservations on fisheries were not taken into account. In the North American Free Trade Agreement (NAFTA), for example, Mexico has a reservation stating that "only Mexican nationals or Mexican enterprises may own land for agriculture, livestock or forestry purposes." For instance, the BIT between Lithuania and the United States specifies: "The Government of the United States of America reserves the right to make or maintain limited exceptions to national treatment […] in the sectors or matters it has indicated below: […] the use of land and natural resources."

46 For instance, the FTA between Malaysia and Pakistan states: "Malaysia reserves the right to adopt or maintain any measures with regard to approval for […] agricultural projects. All approvals are subject to National Land Code and other laws, regulations and policies of the Central and Regional Governments."

47 For example, in the Economic Partnership Agreement between Indonesia and Japan, the definition of investment also comprises intellectual property rights, including new varieties of plants (Art. 58 (f) (vi)).

48 UNCTAD database on investor-State dispute settlement cases.

49 The 15 CARIFORUM-EPA countries are: Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, the Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Saint Kitts and Nevis, Suriname, and Trinidad and Tobago.

50 One example of this approach is the 2004 United States model BIT with its extensive interpretative language on the meaning of the fair and equitable treatment standard and its notion of an indirect taking.