TRENDS IN FOREIGN DIRECT INVESTMENT IN THE AGRICULTURAL SECTOR OF DEVELOPING AND TRANSITION COUNTRIES: A REVIEW

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<tr>
<td>AIF</td>
<td>Agricultural Investment Funds</td>
</tr>
<tr>
<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Program</td>
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<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<td>CEE</td>
<td>Central and Eastern Europe</td>
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<td>CFS</td>
<td>Committee on World Food Security</td>
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<td>CRS</td>
<td>Creditor Reporting System</td>
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<td>CSO</td>
<td>Civil Society Organizations</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<td>BRIC</td>
<td>Brazil, Russian Federation, India and China</td>
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<tr>
<td>DAC</td>
<td>Development Assistance Committee</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GAFSP</td>
<td>Global Agriculture and Food Security Fund</td>
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<td>GCC</td>
<td>Gulf Cooperation Council</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>JV</td>
<td>Joint Venture</td>
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<td>LDC</td>
<td>Least Developed Countries</td>
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<td>M&amp;A</td>
<td>Mergers &amp; Acquisitions</td>
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<td>MFI</td>
<td>Microfinance Institutes</td>
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<td>NEPAD</td>
<td>New Partnership for Africa’s Development</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
</tr>
<tr>
<td>RAI</td>
<td>Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources</td>
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<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium-sized Enterprise</td>
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<tr>
<td>SWF</td>
<td>Sovereign Wealth Fund</td>
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<tr>
<td>TNC</td>
<td>Transnational Corporation</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<tr>
<td>VG</td>
<td>Voluntary Guidelines on the Governance of Tenure, Land, Fisheries and Forests in the Context of National Food Security</td>
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EXECUTIVE SUMMARY
In the last years, investment in the agricultural sector in developing countries has been neglected and the share of public expenditures as well as Official Development Assistance (ODA) in agriculture has declined. The rising commodity prices have served as a wake-up call to support agricultural development and ensure food security and poverty reduction.

FAO has estimated that investment of **USD 83 billion per annum** is required in developing countries’ agriculture to meet the food demand in 2050. This estimate does not include the investment in public good provision such as infrastructure, storage facilities, market development or R&D. **Government spending** and involvement (e.g. through ensuring agricultural institutions, extension services, education, sanitation) in agriculture and provision of public goods are suggested to be most effective in increasing productivity, enabling capital formation, providing incentives and opportunities for farmers to increase their private investment, and strengthen the sector and smallholder farmers in order take advantage of the prospective Foreign Direct Investment (FDI) in the sector.

**FDI in agriculture** of developing countries was only 1% of total world FDI inflows, but has increased in the recent years, in particular in Asia and Oceania, Latin America and the Caribbean and South-East Europe and the Commonwealth of Independent States.

However, developing countries receive (i) less FDI in food processing than developed countries, implying that a large share of higher value added activities takes place in developed countries, and (ii) more FDI in cash crops, e.g. renewable energy sector, than staple crops. Large-scale cash crops production may drive small-scale farmers out of production, increase farmer’s production risks, and negatively impact food security.

In many developing countries, involvement of **Transnational Corporations (TNCs)** increased form the 1980s onward; food processing advanced to an increasingly important manufacturing sector. Almost all headquarters of the top 25 TNCs in the agri-food value chain segment of input supply, food and beverages and retail are located in developed countries, whereas about half of the top 25 TNCs in the agricultural production segment are headquartered in developing countries. In particular, only few TNCs have considerable market share in the supply segment.

In recent years, **institutional investors**, e.g. hedge funds, private equity groups, pension funds, sovereign wealth funds have developed interest to invest in agriculture to diversify the portfolio or being part of the national food security strategies. In particular, **large-scale land acquisitions** have come under scrutiny as they entail considerable risks, e.g. denial of right to food and access to resources, loss of livelihood, food insecurity, and environmental damage. In order to comply with the human rights obligations, host governments may wish to support alternative, inclusive business models such as contract farming or joint ventures. Regional or international frameworks such as FAO’s voluntary guidelines (VG) on the governance of tenure can help to support this aim.

The success and development impact of **inclusive business models** is contingent on context, policies and whether TNCs engage in it as fair and genuine economic activity. Thus, TNCs should ensure
farmers’ involvement in establishing the contract, provide fair and transparent pricing mechanisms, support sustainable agro-ecological production forms, take responsibility for production risk, and refrain from abusing the unequal bargaining position through depressing wages or prices. Host governments may also support farmers by strengthening their negotiation power and providing information services. The latter may be important as literature identifies a gap between companies’ rhetoric and actual practice with respect to the implementation of voluntary, unilateral measures and corporate social responsibility initiatives.

Several benefits can be potentially gained from FDI and TNCs involvement in the agricultural sector. These include tax revenues, infrastructure development, provision of high quality inputs and access to credit, development of skills such as record keeping, and provision of technical advice for contract farmers, and R&D developments for the entire sector. But these might not automatically materialize and could instead lead to low level of net employment, lock-in in a specific segment of the value chain, marginalization of farmers, environmental degradation due to mono-cropping and high irrigation water amounts, farmers’ dependencies on contracts and input supply, unsuitable technology transfers. Literature concludes that benefits may materialize when host countries align the prospective investment with their national agricultural development strategy. The establishment of an integrated policy approach, which comprises policies in areas of infrastructure, R&D, fiscal reforms to benefit from prospective tax revenues may be desirable. FDI may have the most positive impact when the sector is fit to take advantage of the spillovers and the local community and small-holder farmers are strengthened and supported by the availability of public goods, education and training, access to credit markets, secure tenure rights and thus bargaining power.

Overall, FDI may contribute to bridge the investment gap and have development impacts, but government involvement to guide the investment and strengthen the smallholder farmers in the sector remains crucial. Considering the heterogeneity of the local communities, a multi-stakeholder mechanism with open dialogue about the role and merits of TNC might be promising.
1. INTRODUCTION
The rising commodity prices and volatility in 2008 and subsequent concerns about food security have served as a wake-up call to reconsider the food system and foster agricultural development. These concerns are fueled by long term projections of increasing demand for agricultural commodities due to population growth, long life expectancy, rapid economic growth, increased purchasing powers and changing consumption patterns in emerging economies, land degradation due to intensive production and adverse climate change impacts, and increased demand for non-food crops and biofuels due to recent biofuels initiatives and legislation (e.g. Hallam 2009: 2, Miller et al. 2010, UNCTAD 2009: 93, McNellis 2009: 1).

The agricultural sector has long been neglected as motor of development and poverty reduction, and a lack of private and public investment has led to lower productivity growth rates and stagnate production in many developing countries. To achieve food supply for a potential world population of 9.1 billion in 2050, USD 83 billion per annum should be invested in the agricultural sector of developing countries (FAO 2009a, b). Most of the investment is expected to come from farmers themselves, but also from the public sector providing infrastructure, institutions, and R&D. Public investment is found to be most effective to ensure food security and poverty reduction in agriculture, but might not be able to meet these investment needs. Although world inflow of foreign direct investment (FDI) to agriculture was small in the past – less than 1% of total world inflows between 2005 and 2007 (UNCTAD 2009:111) – FDI could contribute to bridge this investment gap. Public actors could therefore be effective in stimulating private investment into the sector while at the same time reducing risks and securing benefits of the investment, by e.g. ensuring that FDI supports the country’s development strategy and spillovers to smallholder production systems (FAO 2009b, Miller et al. 2010, Hallam 2009: 3, 6).

Already in the last decades, FDI and Transnational Corporations (TNCs) have been involved in agriculture in developing countries, in particular in the up- and downstream segment of the global agri-food value chain, but also through non-equity participation such as contract farming. Increased food prices have attracted “new investors” in agriculture, pursuing large-scale land acquisitions in developing countries (UNCTAD 2009: 93, 111). These developments have led to discussions about the forms of FDI and alternative business models in developing countries’ agriculture, the potentials and challenges, and the economic, social, institutional, and policy requirements to benefit from FDI.

We provide a review of recently observed trends in agricultural investment in developing and transition countries and conclude with policy recommendations.
2. CHARACTERISTICS OF THE AGRICULTURAL SECTOR IN DEVELOPING COUNTRIES

2.1. AGRICULTURE - A MOTOR OF GROWTH

Drivers of agricultural production are complex depending on site-specific, economic and socio-cultural factors, technologies, policies and market developments, which are shaped by actors such as self-sufficient and semi-commercial farmers, domestic private sector cooperatives or enterprises producing commodities for export purposes, state-owned enterprises acting as large buyers of agricultural commodities, or foreign firms (UNCTAD 2009: 99).

Agriculture is of growing importance to achieve poverty reduction. Agriculture is at least twice as effective in reducing poverty as GDP growth in non-agricultural sectors (ibid: 95, World Bank 2007: 6). Around 75% of the poor in developing countries live in rural areas, their income depending directly or indirectly on agriculture. In agriculture-based developing countries, the sector employs 65% of the labor force and contributes about 29% to the GDP on average (World Bank 2007: 3, 44). On global scale, poverty rates in rural areas have declined from 37% in 1993 to 30% in 2002. However, there are large variations across regions and countries e.g. the poverty rate in Sub-Saharan Africa and South Asia remains well above the global average. There is also evidence that the decline in poverty rates coincides with agricultural growth, which is correlated with the adoption of new technologies and productivity increases, economic and land reforms as well as trade and price policy liberalizations (ibid: 7, 44).

The transmission of world market prices to the domestic level varies according to country and respective policies (OECD-FAO 2011: 12). Hence, small import-dependent countries (i.e. in Africa) have been severely affected by the food and economic crises (FAO 2011b: 4). Over the period 1970-2008, more than 70% of wheat consumption was met by increments in wheat imports (FAO 2012a: 208-212). Cereals comprise about 40% of the food import basket of Least Developed Countries (LDCs), followed by oils, fats and sugar. Together, these commodity groups account for more than three-quarter of the value of food items imported by LDCs (Konandreas 2012: 61).

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1 In transforming and urbanized economies, the industries and services in the agricultural value chain often account for more than 30% of GDP. These economies encompass most of South and East Asia, North Africa and the Middle East, and some of Europe and Central Asia, where agriculture was estimated to contribute around 7% of growth during 1993-2005, making up 13% of the economy and employing 57% of the labor force (World Bank 2007: 3, 35, 44).
To reduce vulnerability of smallholder farmers and ensure sustained access to food, FAO (2011b) suggests, amongst others, to facilitate access to agricultural inputs and management techniques which may reduce production risk and increase productivity. In LDCs increase in crop production often stems from expansion of arable land, yield-led improvement has only contributed to 1/3 of production increases in Sub-Saharan Africa (FAO 2012a: 178).² Being afraid of adverse price shocks, smallholder farmers might refrain from investing into improved technologies and turn to low-risk and low-return production strategies, which impede long-term development (FAO 2011b).

To counteract these developments, increasing investments from all actors, in particular from farmers themselves, governments and international donors, are needed (World Bank 2007: 20, FAO 2011b). However, agricultural growth does not automatically translate into positive social impacts (Deininger/Byerlee 2011: 17) due to the prevailing imbalanced power relations in the food system and the failures to strengthen smallholder farmers (De Schutter 2011f: 2; in Wise/Murphy 2012; 26).

2.2. PUBLIC INVESTMENTS AND OFFICIAL DEVELOPMENT ASSISTANCE

**Government spending** on agriculture and provision of public goods in rural areas, e.g. related to markets, transportation, infrastructure or research are highly positively correlated with capital formation and productivity as it provides incentives for the private sector and farmers to further invest into productive assets (FAO 2009a: 17). In a sample of developing countries, increased government spending by 10% leads to a 0.34% increase in a country’s agricultural total factor productivity on average (FAO 2012a: 22, von Cramon-Taubadel et al. 2009: 27). The low levels of investment have led to a decline in agriculture’s share in total gross capital formation from 17% to below 10% over the period 1980 and 2007, even though total gross capital formation in developing countries has tripled to USD 355 billion between 1980 and 2007 (UNCTAD 2009: 95, 102). Also public investment in agricultural R&D is found to be the most productive, with rates of return between 30% and 75%. Investment of the private sector can contribute, if issues of intellectual property rights are resolved and smallholder farmers can access the new technologies (FAO 2009a).

To revitalize the agricultural sector, African developing countries’ governments have adopted the Comprehensive Africa Agriculture Development Program (CAADP) in 2003, following the adoption of the New Partnership for Africa’s Development (NEPAD) in 2001. CAADP

² Between 1961 and 2005, 70% of increase in crop production, on global scale, was due to yield increase, 23% to expansion of arable land and 8% due to intensification of cropping (Bruinsma 2009).
The levels of **Official Development Assistance (ODA)** have peaked in 1980s, decreased until the mid 2000s, and increased again in recent years, amounting to about USD 6 billion in 2008 (UNCTAD 2009, World Bank 2007, Lowder/Carisma 2011:21). Similarly, the share of ODA in agriculture, fishery and forestry, has decreased from 20% in 1983 to less than 4% in 2005, and has increased slightly to 6% in 2010 (OECD 2011). Increasing ODA to agriculture has been stressed at the highest political level, because ODA can enhance the effectiveness of and complement public investment (FAO 2009a: 17).

Wise and Murphy (2012) have surveyed **multinational and bilateral funding initiatives** in response to the food crisis. For instance, at the L’Aquila G8 Summit in July 2009, leaders of the G-8 countries plus 5 additional donors have committed to provide a one-time investment of USD 22 billion over 3 years to support agricultural development. However, only USD 6.1 billion of the pledges represent new money and are not reprogrammed money from other countries.

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3 http://www.nepad-caadp.net/; last accessed June 2012
initiatives (ibid: 14, 15). In 2011, only 22% of the pledged funds were disbursed halfway into the program and another 26% committed (ONE 2011: 16). The World Bank’s share of project lending to agriculture declined from 30% in 1980-82 to 7% in 1999-2001 and increased to 12% in 2006-2008 (World Bank 2009: 2). In recent years, the World Bank has established an Agricultural Action Plan, the Agricultural Support Facility providing grants to banks in Asia and Africa, or the Agricultural Price Risk Management strategy. The latter aims to improve access to hedging instruments to manage price volatility (ibid: 18). Although the World Bank has acknowledged the prevalence of market failure in the sector and the importance of an active national government, their initiatives remain market-driven, promoting liberalized markets and the expansion of high-input agriculture (Wise/Murphy 2012: 17). Wise and Murphy (2012) conclude that funding for country-led programs with the state as active actor in the agricultural development programs is more accepted and practiced. Consequently, more attention should be given on small-scale farmers, women in rural communities, agro-ecological practices, climate change impacts, bioenergy demand, and the production of food crops instead of export crops (ibid: 17, 28).

Although this is encouraging, the current austerity measures as response to the global financial and economic crises are likely to reduce these spending (ibid: 27). This might increase the gap between the emphasis on agricultural development, the promised financial support, and actual disbursement (Figure 2, Lowder/Carisma 2011).

2.3. FUTURE INVESTMENT NEEDS

FAO suggests that to meet food demand of 9.1 billion people in 2050, an average annual net investment of USD 83 billion (in 2009 USD) in primary agriculture and necessary downstream activities (e.g. storage and processing facilities), i.e. USD 20 billion to crop production, USD 13 billion to livestock production, and USD 59 billion to downstream activities, is required in developing countries. Public goods like roads, electrification or irrigation projects are not included in this figure (FAO 2009b).

Most of the investment has to come from farmers themselves, but should be supported by public investment. Public investment should provide agricultural R&D; ensure agricultural institutions, extension services, infrastructure, power, storage and irrigation; and support education, sanitation, water supply and health care particularly for women. Foreign direct

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5 Before, the World Bank issued the Word Development Report “Agriculture for Development” in 2008, it has been 25 years since the World Bank had published an annual report on agriculture (Wise/ Murphy 2012: 12).

6 How accessible and effective hedging strategies are for small-scale farmers still needs to be investigated. Research suggests that due to the increased financialization of commodity markets hedging against price risks has become more complex and expensive and farmers bear high transaction and financial costs and suffer skewed access to information (Staritz 2012a: 22).
investment can contribute in bridging the investment gap, but government spending remains crucial (FAO 2009b). Fan and Rosegrant (2008) estimate the total incremental public spending required to achieve the Millennium Development Goal of halving the proportion of poor and hungry people to USD 14 billion for all developing countries.

3. FOREIGN DIRECT INVESTMENT IN AGRICULTURE

3.1. VOLUMES AND TRENDS OF FOREIGN DIRECT INVESTMENT IN AGRICULTURE

Generally, FDI is defined as “an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one country […] in an enterprise resident in an economy other than that of the foreign investors […]” (UNCTAD 2009: 243). FDI has three components (i) equity capital, (ii) reinvested earning, and (iii) intra-company loans (ibid). There is no comprehensive database available which allows tracking levels of FDI, as disclosing all information might not be in the interest of private investors (Lowder/Carisma 2011: 29).7

The UNCTADstat database shows that world total inward FDI flows, reported in current prices and exchange rates, increased from USD 627 billion in 2000 to USD 1.9 trillion in 2007, declined sharply during the crises, and started to increase again in 2010, reaching USD 1.2 trillion (Figure 3 (left)).

Figure 3: (left) Total inward FDI flows; (right) Total outward FDI flows from 1980 to 2010.

Source: own design, based on UNCTADstat data, June 2012.

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7 There are two datasets which provide some information on FDI to agriculture: UNCTAD data on foreign direct investment available through the online database UNCTADstat: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx; last accessed July 2012. It provides information of total annual FDI flows/stocks and M&As for all host countries/regions. It does not provide annual FDI broken down by sectors for the respective countries/regions. However, the World Investment Report 2009, which focused on FDI in agriculture, provides data for FDI in agriculture. Lowder and Carisma (2011) also identify the Financial Times Market FDI online database, which reports cross border direct investment projects.
The share of FDI inflows into developing and transition countries increased from 18% and 0.5% in 2000 to 46% and 5% in 2010. Developing economies in Asia have received the highest share, followed by Latin America and Africa. The share of total outward FDI of developing countries has increased from 6% in 1999 to 25% in 2010, and for transition countries from 1% in 2002 to 5% in 2010 (Figure 3 (right)).

The estimated world inward FDI stock in agriculture\(^8\) has increased 4.3-fold in developed countries and 6.4-fold in developing countries between 1990 and 2009. In the same period, inward FDI stock in food and beverages has increased 6.4-fold in developed countries and 6.1-fold in developing countries (Table 1; UNCTAD 2011: Annex Table 24). The world inward FDI flows in agriculture were below USD 1 billion per year between 1989 and 1991, exceeded USD 3 billion per year between 2005 to 2007 accounting for about 1% of total world FDI inflows (UNCTAD 2009: 111), and amounted to USD 5 billion in 2008. FDI in food and beverages increased from USD 5 billion in 1991 to USD 85 billion in 2008 (cp. Figure 4 and Table A1 in Appendix; Lowder/Carisma 2011). However, these values are exaggerated, as the number of reporting countries has increased from approximately 30 to 70, and the data is reported in current USD (Lowder/Carisma 2011: 3; Paper was published in May 2012). UNCTAD (2009: 116) illustrates inwards FDI flows in agriculture by region (Figure 5). Whereas inflows to Asia, Oceania and Latin America and the Caribbean and transition economies in Europe have increased, the inflows to Africa have slightly declined.

Figure 4: FDI inflows in agriculture, forestry and fishing and food and beverages, 1980-2007, in million USD.

![Figure 4](image1.png)

Figure 5: Average inward FDI in agriculture by region for the period 2002-2004 and 2005-2007, in million USD.

![Figure 5](image2.png)

Note: The number of countries reporting FDI has increased for agriculture, fishing, and forestry from 24 to 65, and in manufacturing, food and beverages from 20-50 countries.

Source of both Figures: UNCTAD (2009)

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\(^8\) Agriculture includes hunting, fishing and forestry (UNCTAD 2011; Annex Table 24; www.unctad.org/fdi)
On **national level**, the share of agriculture in total inward FDI flows of selected developing countries, calculated for the period 2005-2007 is less than 1% for 17 countries, between 1% and 2% for another 7 countries, and relatively significant, ranging between 6% and 15% for another 8 countries. Countries with a relatively high share, like Cambodia, or Lao People’s Democratic Republic might also have a high share of agriculture on GDP, or large availability of land for long-term lease, or policies attracting investors (UNCTAD 2009: 111-113).

Comparing different segments of the value chain, developing countries receive less FDI in food processing than developed countries, implying that a large share of higher value added activities still takes place in developed countries. (UNCTAD 2009: 111, cp. Table 1).

![Table 1: Estimated world inward FDI stock by sector and region FDI inflows in 1990 and 2009, in million USD.](image)

Based on the Financial Times FDI database, Lowder and Carisma (2011: 34, 35) find that FDI in projects based on primary agriculture in the Alternative/Renewable Energy sector is more voluminous and has increased substantially from USD 7.9 billion in 2003 to USD 90.7 billion in 2008, and declined to USD 42 billion in 2010. FDI in the sectors food and tobacco has been less voluminous and increased only slightly, from USD 1.4 billion in 2003 to USD 1.6 billion in 2010. Similarly, FDI in beverages amounted to USD 0.6 billion in 2003 and to USD 0.5 billion in 2008 and 2010.

FDI is usually low in staple crops such as rice, and high in cash crops such as floriculture or sugar. For some commodities, like soybeans, TNCs control large parts of the value chain (UNCTAD 2009: 112). FDI inflows in agriculture vary by product and region. South American countries receive FDI for wheat, rice, sugar cane, fruits flowers, soybeans, meat and poultry; in Central America FDI has been targeted towards sugar cane. In Africa towards staple crops like rice, wheat and oil crops cotton, in Southern Africa towards sugar cane and cotton, and in East Africa towards floriculture. South Asia has received FDI for large

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9 These countries are, in increasing order: Bangladesh, Egypt, Mongolia, Mauritius, Czech Republic, Albania, Tunisia, Serbia, Poland, Bulgaria, Republic Moldova, Lithuania, Romania, Nicaragua, Estonia, Latvia, Greece (UNCTAD 2009: 113)

10 These countries are, in increasing order: China, Jordan, Russian federation, The FYR of Macedonia, Islamic republic of Iran, Brazil, Madagascar (UNCTAD 2009: 113).

11 These countries are, in increasing order: Honduras (~ 6%), Peru, Mozambique, United Republic of Tanzania, Ecuador (all between 8%-10%), Malaysia and Lao People’s Democratic Republic (both between 12%-14%), and Cambodia (~15%).

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production of wheat and rice, while other Asian regions have received FDI for cash crops, meat and poultry production. Transition economies mainly attracted FDI for dairy products (UNCTAD 2009: 115-116).

From the 30 important countries providing **outward FDI in agriculture** in 2007, 12 were developed countries, led by the USA and Canada. The developing and transition countries consists of (increasing order) Colombia, Taiwan Province of China, Brazil, Chile, Croatia, Republic of Korea and China (UNCTAD 2009: 118).

Recently, **South-South** investments have been rising in total FDI outflows (cp. Figure 4, right), but also into agriculture, in particular into Africa. The investment stems mainly from Brazil, Russian Federation, India and China (BRICS), is resourced based and targeted toward energy and minerals, e.g. sugarcane, grains for ethanol and palm oil for the biodiesel production. In addition, “new investors”, such as sovereign wealth funds or companies from Bahrain, China, Qatar, Kuwait, Libyan, Saudi Arabia, Korea or United Arab Emirates have emerged which conduct food security related investment in land and concerns about irrigation water (Sauvant 2005; Rama/Wilkinson 2008: 52, 60).\(^\text{12}\)

### 3.2. TRANSNATIONAL CORPORATIONS AND THE AGRI-FOOD VALUE CHAIN

Before the Second World War, export oriented agriculture, e.g. the production of bananas, crops, sugar, tea, was a host to FDI. After the Second World War, many developing countries restricted foreign ownership in agriculture and FDI was shifted towards manufacturing and services. In the 1960s/70s, several food processing companies (e.g. Nestlé, Coca-Cola) started to import their products for sale to developing countries and invest in local factories. In the 1980s, involvement of FDI in the agri-food value chain was facilitated by developments in transportation, communication, **liberalization of capital flows**, trade and the abolishment of state-run interventions (UNCTAD 2009: 105-115, Hawkes/Murphy 2009: 23-25). Many developing countries turned towards export-oriented growth, initially based on labor-intensive production. This has led to **off-shoring** and **outsourcing** activities of TNCs, which are referred to as “new international division of labor” (Fröbel et al. 1980).

A **horizontally** expanding TNC is located in a particular segment of the value chain, moves to a host country, possibly because of favorable policies, location or endowments, to establish an affiliate and contractual arrangement in the same field of production. A **vertically** expanding

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\(^{12}\)For instance, the Gulf Cooperation Council (GCC) has stopped to invest in domestic agriculture, but rather in other developing and transition countries (UNCTAD 2009: 122).
TNC coordinates activities along the segments of the value chain (UNCTAD 2009: 107, 108).\footnote{13} Regarding the global agri-food value chain, FDI most frequently targets upstream and downstream activities (cp. Figure A1 in Appendix). A clear differentiation between agriculture-based TNCs and those further downstream is often not straightforward.

Regarding TNC participation, several trends are found:

(i) In LDCs, food processing is an important manufacturing sector. In seven selected countries\footnote{14}, food processing accounted for 17.5% of total manufacturing value added and for 1.5% in GDP between 1998 and 2002 on average (Wilkinson/Rocha 2006: 8).

(ii) With rising volume of FDI, the proportion of FDI into manufacture of highly processed goods for sale in the host market rose, and declined in production of primary processed products aimed for export into the home market (Hawkes/Murphy 2009: 23-25).

(iii) Comparing the average transnationality index\footnote{15} of the top 100 non-financial TNCs, ranked by foreign assets in 2010, the food/beverages/tobacco industry is the fifth transnationalized industry of 23 industries\footnote{16}, with an average index of 77 % (UNCTAD 2011: Annex tables 29). The index was 59% in 1990 and 79% in 1999, constituting the second most transnationalized industry after media (Senauer/Venturini 2004: 5).\footnote{17} TNCs are present in many countries to respond rapidly to changing consumer trends. Nestlé, Unilever, or PepsiCo are present in approximately 120-150 countries (Wilkinson/Rocha 2006: 16). A large proportion of exports to third countries took place within the corporate network, which confirms the high degree of international integration of the TNCs (UNCTAD 2009: 114).

(iv) Regarding the region of origin of the top 25 TNCs in different segments of the agri-food value chain, ranked by foreign assets in 2007, 12 of the top 25 agriculture-based TNCs are headquartered in developing countries.\footnote{18} None of the top 25 TNCs in the supplier segment of the value chain is headquartered in developing countries. Only 2 TNCs in the food

\footnote{13} TNCs get involved by (i) indirect, non-equity participation though the implementation of standards, (ii) direct, non-equity participation through contract farming, or (iii) direct, equity participation through FDI, where TNC takes over control of transactions, might own all assets including or excluding land (UNCTAD 2009: 107, 108).

\footnote{14} These countries include Bangladesh, Ethiopia, Eritrea, India, Mongolia, Senegal and Viet Nam (Wilkinson/Rocha 2006: 8).

\footnote{15} The Transnationality Index is calculated as the average of the ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment (cp. UNCTAD 2011: Annex table 29).

\footnote{16} After business services, gold mining, consumer services and non-metallic mineral products (UNCTAD 2011: Annex table 29).

\footnote{17} The list of the world’s top 100 non-financial TNCs ranked by foreign assets, includes following TNCs in the food/beverages/tobacco industry (in decreasing order): Nestlé SA, Anheuser-Buch InBev NV, Pernod-Ricard SA, SAB Miller PLC, British American Tobacco PLC, Kraft Foods Inc., Japan Tobacco Inc., the Coca-Cola Company (UNCTAD 2011: Annex table 29).

\footnote{18} These are in decreasing order: Sime Darby Bhd (Malaysia); Charoen Pokphand Foods Public Company Ltd (Thailand); Kuala Lumpur Kepong Bhd (Malaysia), Kulim (Malaysia), PPB Group (Malaysia, Carsons Cumberbatch PLC (Sri Lanka), TSH Resources BHD (Malaysia), Multi Vest Resources (Malaysia), Bakrie & Brothers Terbuka (Indonesia), New Britain Palm Oil Ltd (Papua New Guinea), Karuturi Global Ltd (India) Country Bird Holdings Ltd (South Africa) (UNCTAD 2009: 124).
and beverages segment and 3 TNCs in the retail are headquartered in developing countries\textsuperscript{19,20} (UNCTAD 2009: 124). Compare Table A2 in the Appendix for top 10 TNCs in the segments of the agri-food value chain.

(ii) Few TNCs have considerable market power. In the supply segment of the value chain, 4 TNCs accounted for a market share of 59\% in agrochemical sales in 2007 (Bayer (Germany), Syngenta (Switzerland), BASF (Germany), Dow AgroSciences (USA)). In seed supply, 4 companies had a market share of 53\% (Monsanto (USA), DuPont (USA) Syngenta (Switzerland), Groupe Limagrain (France)). In the food and beverage manufacturing industry, the level of concentration is lower: 10 food & beverage TNCs account for 26\% of the global market for packaged food products (ETC Group 2008: 11-21).

(iv) In food processing and retailing, most of the FDI stems from \textbf{cross-border M\&As} (Hawkes/Murphy 2009: 23-25). A large part of the deals are concluded by TNCs already involved in food-processing and trade, emphasizing the importance of vertical integration: In 2007 there were 63 cross-border M\&A purchases, of which 70\% by value were undertaken by food-related manufacturing and services TNCs (UNCTAD 2009: 113-114). In 2007, agriculture accounted for 5\% of total cross border M\&As and food processing for 95\% (UNCTAD 2009: 114, cp. Figure 6 and Table A1 in Appendix). In production, non-equity participation of TNCs in form of contract farming has taken place more frequently. TNCs involvement in production might still occur when new commodities have to be produced, or the conditions are favorable but the existing farm practices are inadequate (Rama/Wilkinson 2008: 55, Hawkes/Murphy 2009: 23-25).

Figure 6: FDI Net cross-border M\&A sales for agricultural production and food processing, in million USD.

Note: cross-border M\&As are calculated on a net basis as: cross-border M\&A net sales in a host economy = sales of companies in the host economy to foreign TNCs minus sales of foreign affiliates in the host economy. The data involve only those deals that involve an acquisition of an equity stake of more than 10\%. Source: UNCTAD (2009: 115).

\textsuperscript{19} These include Wilmar International Ltd.(Singapore) ad Fraser & Neave Ltd. (Singapore).
\textsuperscript{20} These include China Resources Enterprise Ltd. (Hong Kong, China), Dairy farm International Holdings Ltd. 8Hong Kong, China) and Kuwait Food Company (Americana) (Kuwait).
3.3. INSTITUTIONAL INVESTORS IN AGRICULTURE

Private institutional investors such as investment banks, hedge funds and private equity groups, pension funds, sovereign wealth funds invest in fiduciary role large sums in real estate or companies on behalf of a third party. Some have gained a renewed interest in developing country’s agricultural sector, which is, however, hard to empirically verify, as FDI data lacks sufficient detail or is highly aggregated. It is also crucial to consider that there is cross investing between the following groups of investors (McNellies 2009: 1, Selby 2009).

Sovereign Wealth Funds (SWFs) are state-owned investment funds and have become important actors in the global financial market – having USD 5 trillion in assets under management at the end of 2011. The cumulative value of the SWF assets has even risen by 10% during the financial crisis. The majority of these funds is in relatively liquid financial assets in mature markets and only a small value of estimated USD 110 billion in productive assets, of which a quarter are in developing countries, concentrated on natural resources, real estate and banking. FDI by SWF accounts for 5% of their assets under management, which amounts to only 1% of global FDI stock in 2011 (UNCTAD 2012). SWFs are long-term and rather conservative investors, usually created when governments have budgetary surpluses or build up for future generations (McNellis 2009: 3-4). SWFs are found to team up with host governments or local partners to pursue certain projects, but also with private institutional investors to make joint investments abroad. The countries involved in these deals are China, Korea, Gulf States, Saudi Arabia, United Arab Emirates and the target countries are mainly Congo, Ethiopia, Madagascar, Mozambique, Sudan, Tanzania, Cambodia, Indonesia, Laos, Pakistan, Philippines (McNellis 2009: 3-5). Table 2 provides FDI of SWFs by host country.

Table 2: FDI by SWFs by host country and region, cumulative flows, 2005-2011, in million USD.

<table>
<thead>
<tr>
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<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>2011</th>
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<tr>
<td><strong>World</strong></td>
<td>11 811</td>
<td>36 915</td>
<td>86 539</td>
<td>109 425</td>
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<tr>
<td><strong>Developed economies</strong></td>
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<tr>
<td>Europe</td>
<td>6 390</td>
<td>28 003</td>
<td>63 639</td>
<td>81 338</td>
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<tr>
<td>European Union</td>
<td>5 046</td>
<td>19 216</td>
<td>40 714</td>
<td>49 857</td>
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<tr>
<td>United States</td>
<td>125</td>
<td>5 778</td>
<td>10 316</td>
<td>13 305</td>
</tr>
<tr>
<td><strong>Developing economies</strong></td>
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<tr>
<td>Africa</td>
<td>5 430</td>
<td>8 912</td>
<td>21 840</td>
<td>25 687</td>
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<tr>
<td>Latin America and the Caribbean</td>
<td>900</td>
<td>900</td>
<td>6 100</td>
<td>6 445</td>
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<tr>
<td>West Asia</td>
<td>228</td>
<td>1 257</td>
<td>1 276</td>
<td>3 103</td>
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<tr>
<td>South, East and South east Asia</td>
<td>4302</td>
<td>6 312</td>
<td>12 971</td>
<td>14 509</td>
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<tr>
<td><strong>Transition economies</strong></td>
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<td>1 061</td>
<td>2 401</td>
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</tbody>
</table>

Note: The estimate includes Greenfield cumulative flows and M&As. The latter constitute 85%. Only includes investments by SWFs and not by entities established by SWFs. Data for green field FDI in 2011 cover January – November (UNCTAD 2012: 2); Source: UNCTAD (2012)
The primary objective of **Private Equity Funds** is to locate FDI to maximize the return on investment for the funds’ participants. They invest capital, raised from institutional investors or individuals, into operating companies or buy major control of an existing firm through the use of leverage, aiming to make them profitable, hold them short or long term and sell it again. There are different types of private equity, but there appears to be an increased interest in investing into emerging markets, including large farms, food processing, or warehouse companies. They invest increasingly into raw land which is then turned into crop land (McNellis 2009: 14-17). Private equity funds rose by nearly 200% to USD 2.3 billion from 2006 to 2007, of which Sub-Saharan Africa has a share of 7%, Asia of 58%, Latin America of 8%, and CEE/Russian Federation of 10% (Dickinson 2009).

The 300 largest **Pension Funds**, hold USD 6 trillion of assets. Their investment style is usually conservative. In the last years, they have looked for non-traditional investment opportunities in emerging and frontier markets to diversify their portfolio. Pension funds often give money to hedge funds, which structure a private equity investment fund to invest in African agriculture. **Hedge funds** usually pursue a variety of strategies, including investment in land, taking long and short positions, where the leading managers are subsidiaries of large banks and insurance groups (McNellis 2009: 11-14).

In developing countries, **Microfinance Institutes (MFIs)** have become a big industry providing small scale farmers as well as micro and small sized enterprises with financial services, e.g. loans, insurances (World Bank 2007:143, Miller et al. 2010: 15). There are about 10 000 institutions with about 100 million borrowers, but still serves less than 1 in 10 people. The banking sector sees a growing opportunity in providing MFIs with financial services but also management training. **Microfinance Funds** grew at an average annual rate of 32% between 2004 and 2009 and are expected to remain a stable investment opportunity of being unaffected by the credit crisis (McNellis 2009: 7-10).

In developing countries, there is still a large demand for small-scale financing, in particular in the “missing middle” of the agri-food chain, which includes e.g. agricultural cooperatives, or SME agribusinesses that link with small scale farmers and sell on the local market. They are

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21 In fact, African assets are booming as there is a low correlation with global markets, high commodity prices and liquidity. The risk premium for African assets decreased from 8.9% in 2006 to 6.7% in 2007, return expectations rose, compared to CEE and Middle East (Dickinson 2009).

22 For instance, BlackRockInc, one of the largest money managers set up a USD 200 million agricultural hedge fund of which USD 30 million will reported by be used to acquire farmland around the world (McNellis 2009:13)

23 For instance, the private Bank of Scotland provides 30 MFIs in India with financial services and further 41 MFIs with management and administrative training and capacity building (McNellis 2009: 7).

24 Naturally, the commercialization and privatization is subject to debate, as competitive market forces may lead to a marginalization of the rural poor. Additionally, the large financial institutions force smaller private lenders out of a lucrative segment (McNellis 2009: 7-10).
often too large for MFIs and too small for commercial banks or private equity funds (Miller et al. 2010: 15). These can be served by Agricultural Investment Funds (AIFs). Their capital comes from private individuals, foundations, institutional investors or public funds, aiming to pool capital and target investment opportunities which are not accessible to an individual investor. Depending on the composition of investors, e.g. when development agencies are involved, AIFs can be outcome oriented, focusing on development and social impacts rather than on revenue (Miller et al. 2010: 10-27).

4. ASSESSMENT OF SELECTED INVESTMENT STRATEGIES

4.1. LARGE-SCALE LAND ACQUISITION

There are three main driving forces behind the recent “land rush” or “land grabbing”: (i) the food crisis has woken up several developing countries to increase private investment into the agricultural sector. (ii) Wealthy nations are willing to buy land assets to secure their food supply in case of future crises. (iii) With rising commodity prices the rates of return in agriculture are increasing and investment in land for production constitutes an interesting return option (De Schutter 2011a: 151, Cotula et al. 2009: 5). Notably, the rush to land is resource-seeking, i.e. land and water, and not market seeking (GRAIN 2012, Cuffaro/Hallam 2011: 5).

Figure 7: (left) Number of land deals from 2000 to 2010 (N = 245 for reported data & N = 102 for reliable data). (right) Land acquisition by region, sire and number of projects (N = 1217 for number of deals and N = 917 for cumulative size of deals).


The rush to land has fallen from its peak in 2009 (cp. Figure 7 (left)).25 The online public database Land Matrix contains 1217 land deals26, amounting to 83.2 million ha land in

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25 These deals are largely intransparent. Still, a slowdown could have occurred due to declining commodity prices, new realism about the risks of investment or the financial crisis, but could also be due to a decline of media coverage or increased secrecy about the deals in order to avoid international criticism (Anseeuw et al. 2012).
developing countries, equivalent of 1.7% of the world’s agricultural area. Out of these, 403 deals (32%), which cover 26.2 million ha have been reported to be signed and 330 deals (27%) covering 21 million ha have been implemented. The majority of acquisitions are concentrated in 84 countries, where 11 of them concentrate 70% of the reported land area. These are amongst the poorest countries, with weak institutions, weak land tenure security, high prevalence of hunger and low integration in the world markets. As about 45% of these deals target cropland vegetation mosaics, it is likely that there is competition with smallholder farmers. The Land Matrix also reveals that many of these lands have a high yield gap, which may be closed with additional inputs. On the acquired land, food production accounts for 34%, non-food crops account for 26%, “flex crops” for 23% and “multiple uses” for 17% of investments; most of which produced for export. The investors are mainly from emerging countries (e.g. China, GCC, and Korea) but also from USA and Europe and firms from Brazil, Argentina and South Africa, which seek to replicate domestic success through investment. Involved are private companies (442 projects, 30.3 million ha), state-owned companies (172 projects, 11.5 million ha), investment funds (32 projects, 3.3 million ha), and private-public partnerships (12 projects and 0.6 million ha) (Anseeuw et al. 2012).

4.1.1. RISK AND OPPORTUNITIES
Only few see opportunities in these deals, suggesting an increase in productivity through infusion of capacity, technology and capital, provision of on and off farm-jobs, infrastructure or health facilities for the population or increasing macro-level benefits. Opponents state that these favorable developments may not outweigh the risks and resulting damage. Land deals may exacerbate insecurity and loss of livelihood, loss of subsistence, environmental degradation and loss of biodiversity, undermining food security and production for local consumption, replacement of food crops by cash crops and local genetic resources through monocultures and pesticides. Deals are not negotiated in equal terms (e.g. Cotula et al. 2009, Deininger/Byerlee 2011, von Braun/Meinzen-Dick 2009, Wouterse 2011). The various forms of land tenure or the lack of clear property rights may exacerbate inequality in bargaining power and result in governments selling or leasing land which is used by smallholders. Only few projects engage with local communities and there is evidence of eviction with small compensation (Anseeuw et al. 2012). De Schutter (2011a) stresses that the implementation of titling schemes, which are based on the recognition of formal ownership, rather than on land

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26 Information about 625 (51.4%) of these deals, which still cover 43.7 million ha (39.3%) have been evaluated as coming from a reliable source of information (Anseeuw et al. 2012).
27 These include Sudan, Ethiopia, Mozambique, Tanzania, Madagascar, Zambia and DR Congo, the Philippines, Indonesia and Laos (Anseeuw et al. 2012).
users’ rights needs to be reconsidered. These may confirm the unequal distribution land, e.g. when small elites own most of the land available, or might become source of conflict, e.g. when leading to privatization of previously communal land. On a more fundamental level, the creation of a market for property rights itself might have negative consequences. Markets might favor those with access to capital, and result in small farmers being bought out from their land, e.g. when have fallen into debt after a season of bad harvest. Thus, the strengthening of property rights should not be confused with strengthening the security of tenure (ibid: 269-271).

A further problem regarding large-scale land deals stems from the classification of current land uses. Land leases are often justified on the grounds that the land for sale or lease is “marginal”, “waste” “idle” land. These categories might not reflect the actual use of the land, e.g. for seasonal herding practices or as buffer zone, or their particular cultural or ecological significance. Borras and Franco (2010, 2012) refer to Scott (1998) who argues that these classifications are a result of a process called “state simplification”, of facilitating central administration by simplifying observed local social practices (ibid 2010: 516, 2012: 45).

If, despite of these considerations, the development of a large-scale plantation appears a desirable option for the host country, further risks need to be considered as well: first, agriculture-based countries may have a tendency to lower level of requirements imposed on investors as they compete for arrival of direct investment. Secondly, institutional and governance frameworks of host countries are often weak and ill-equipped to protect rights of land users and manage investment in farmland and its consequences (De Schutter 2011a: 264-267). Cotula et al. (2009) find that many countries have progressive laws on paper and also gaps between legislation and implementation and that many concluded contracts tend to be too short and simple compared to the reality of the transaction (ibid: 7). Thirdly, pre-existing obligations of host countries might preclude the adoption of measures which would align the investment with a host country’s development strategy. Restrictions under e.g. regional free trade agreements may include prohibition of restrictions of exports in times of food insecurity, or restrictions to create joint ventures with domestic participation (De Schutter 2011a: 266).

4.1.2. ALTERNATIVES AND REQUIREMENTS

De Schutter (2011a) stresses that the reality of these obstacles cannot be ignored by any attempts aimed to regulate large-scale land acquisitions by promoting sustainable investment rules. He suggests that if host countries have a weak institutional framework, a regional or international approach to regulate large-scale investment is needed. Regional frameworks could define how rights of land users should be protected and how local communities can be
involved. These measures could strengthen bargaining power of host countries and avoid that little or less stringent regulations are imposed to attract investors (ibid: 264, 267). Regarding the protection of land users, De Schutter (2011a) suggests the adoption of anti-eviction laws combined with the registration of use rights based on customary forms of tenure. This may lead to the establishment of markets for rental rights, protect farmers from encroachments, and long-term investment in land by providing collateral access to credit (ibid: 271).

De Schutter (2011a: 256) stresses that change in rights over land should only be the last resort. Governments should thus carefully examine the high opportunity costs involved in ceding land to an investor. Therefore, alternative business models could be implemented that are more conducive to the long-term needs of the local population and the realization of human rights (De Schutter 2009b: par 9). If, however, no alternative business model can be implemented then the obstacles should be removed and host countries’ capacities need to be strengthened. In this context, De Schutter (2011a: 265) suggests to (i) map land available for development by foreign investors. Spatial planning can help to identify potentials for productivity increases (Deininger/Byerlee 2011); (ii) strengthen security of tenure to protect land users from eviction; (iii) develop an appropriate legal framework and ensure that social and environmental standards including enforcement and monitoring are formulated in legislation, (iv) establish appropriate processes for consultation with local communities, (v) screen investors, analyze the viability of the project, and monitor compliance, (vi) establish dispute-resolution mechanisms accessible to all (De Schutter 2011a: 264, 265).

4.1.3. INTERNATIONAL RESPONSE AND INITIATIVES

The problems of large-scale land acquisition are also discussed on the international arena. In the past years, several initiatives have been formulated and critically discussed. “The Principles for Responsible Agricultural Investment (RAI) that Respects Rights, Livelihoods and Resources”, were formulated by FAO, IFAD, UNCTAD and the World Bank Group. RAI have been strongly criticized by the several organizations such that it legitimizes land deals and creates the illusion that following a set of voluntary rules can make

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28 RAI was reached in Fall 2009 among World Bank, FAO, UNCTAD, and IFAD. The principles include:

Principle 1: Existing rights to land and associated natural resources are recognized and respected.

Principle 2: Investments do not jeopardize food security but rather strengthen it.

Principle 3: Processes for accessing land and other resources and then making associated investments are transparent, monitored, and ensure accountability by all stakeholders, within a proper business, legal, and regulatory environment.

Principle 4: All those materially affected are consulted, and agreements from consultations are recorded and enforced.

Principle 5: Investors ensure that projects respect the rule of law, reflect industry best practice, are viable economically, and result in durable shared value.

Principle 6: Investments generate desirable social and distributional impacts and do not increase vulnerability.

Principle 7: Environmental impacts due to a project are quantified and measures taken to encourage sustainable resource use while minimizing the risk/magnitude of negative impacts and mitigating them.

Source: http://www.responsibleagroinvestment.org/rai/node/256; last accessed in June 2012.
large-scale land acquisition a “win-win” situation for all (The Global Campaign for Agrarian Reform 2010, TNI 2011: 2, De Schutter 2011a: 254, Borras/Franco 2011: 519). Amongst others, RAI was also criticized of not including any references to international human right laws or binding legal instruments (The Global Campaign for Agrarian Reform 2010).

As important alternative, De Schutter in his function as Special Rapporteur on the right to food has presented a human-rights based approach, including a set of eleven minimum principles and measures to address the human rights challenge of large-scale land acquisition and leases, released in December 2009 (De Schutter 2009b, De Schutter 2011a: 255, 256). They imply that large scale land acquisition can not necessarily be justified even when it complies with the listed principles (De Schutter 2009b: par. 9).²⁹

In May 2012, after 3 years of regional, private sector and civil society consultation processes and intergovernmental negotiation, the Committee on World Food Security (CFS)³⁰ endorsed the “Voluntary Guidelines (VG) on the Governance of Tenure, Land, Fisheries and Forests in the Context of National Food Security”. The VG have been adopted aiming to improve the governance of the tenure systems by providing guidance and information on internationally accepted practices. They also shall contribute to the development of policy, legal and organizational frameworks to regulate tenure rights that exist over resources as well as enhance transparency and improve functioning of tenure systems, and strengthen capacities of all actors involved. The emphasis is on vulnerable and marginalized people, with the goal of food security and realization of the right to, amongst others, adequate food and sustainable development. The VG draw on existing internationally accepted human rights instruments and the States’ existing obligations under international law, including the Universal Declaration of Human Rights (FAO 2012b). Civil Society Organizations (CSO) stress that with the VGs an essential first step has been made, but that there is still a long way ahead. CSO points out that the guidelines fail to sufficiently challenge practices such as land or water grabbing, do not provide a comprehensive set of rules to counter large-scale land acquisitions, are too weak to prioritize support to small-scale producers, and do not further protect the rights of indigenous

²⁹ Thus, the first principle states that governments should carefully examine the opportunity costs involved in ceding land to an investor, in particular when other uses could be made of the land available which could be more conducive to the long-term needs of the local population and the full realization of human rights (principle 1). Thus, benefits of investment could be derived by implementing alternative business models, such as contract farming, which does not entail changes in rights over land (De Schutter 2009: par 9). Local population should benefit from the revenues generate by the investment agreements and contracts should prioritize development needs of the local population (principle 4); also states and investors should promote labor-intensive farming systems to create employment opportunities (principle 5), identify ways to protect environment (principle 6), perform participatory impact assessments prior to the conclusion of the investment agreements (principle 9).

³⁰ The CFS is an intergovernmental body, which serves the United Nations system for review and follow-up policies concerning world food security. CFS aims to give a voice to all stakeholders, be inclusive, and encourage the exchange of views and experiences, build on empirical and scientific analysis and monitor effectiveness of actions and policies.
peoples. They further urge governments and organizations to instantly and effectively implement the guidelines (CSO Press release 2012).

In 2011, a process of Consultation on Principles for Responsible Agricultural Investments within the CFS has started (CFS 2011).

4.2. INCLUSIVE BUSINESS MODELS

4.2.1. CONTRACT FARMING

Contract farming has been promoted in several developing countries since the 1950s, and experienced considerable growth in the 1970s and 80s (Kirsten/Sartorius 2002). There is no global scale data available to capture the full extent of contract farming, but it is estimated that TNCs are engaged in 100 countries, sourcing agricultural products through contracts (UNCTAD 2009: 118). It has become the dominant form of TNC involvement to procure high quality low priced agricultural commodities, in particular when a specific quality and standard is required, commodities are easily perishable, efficient logistics and processing is needed and TNCs can increase control down the supply chain. It is less capital-intensive and less risky as production risk is spread over a large number of suppliers. The arrangements can vary and might pursue multiple, more or less congruent, objectives, e.g. social or profit criteria. They are usually signed at planting time (Kirsten/Sartorius 2002, Rama/Wilkinson 2008: 55, UNCTAD 2009: 119). Contract farming schemes vary by arrangements, contractors, products and intensity of coordination (Eaton/Shepherd 2001, also UNCTAD 2009: 119, Vermeulen/Cotula 2010: 40).31

Contract farming in development countries has had successes and failures and various impacts on smallholder farmers. A generalization of the effects of contract farming is difficult. Benefits will depend on agrarian structure, levels of urbanization, the institutional framework, the stage of development and the functioning of domestic markets and the form of integration in global markets (Wilkinson/Rocha 2006: 4). Contract farming can generate benefits, when the agribusinesses provide inputs, organizational methods or technical advice,

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31 Roughly 5 models can be distinguished (Eaton/Shepherd 2001, also UNCTAD 2009: 119, Vermeulen/Cotula 2010: 40):
1) The centralized model, where TNCs buy commodities from a large number of small farmers by strict vertical coordination and control of quantity and quality, e.g. for commodities with high degree of processing (e.g. tea, coffee, sugar cane).
2) The nucleus estate model, in which contractor sources also from own production plantations. Under the outgrowing schemes, a variation of the nucleus model, a facility, e.g. processing, is surrounded by several growers who produce on own land.
3) In the multipartite scheme the partners set up a joint venture. Input provider, government of the host country, non-governmental organizations or aid or lending agencies can be part of the arrangement (see section 4.2.2)
4) The informal model provides verbal, seasonal arrangements, in particular for crops with low vertical integration and processing needs;
5) The intermediary model, where a contract is set up between a processor or trader who contracts with intermediates, who then contract with farmers.
direct or indirect support to the producer who wants to improve skills, quality, or wants to invest. Farmers have a reliable source of supply and a buyer for the crops and land rights are left untouched. Contracts schemes can provide employment opportunities, allow access to remote high-value markets, help to improve production quality and post-harvest control; can facilitate farmers’ access to financial services and credit through financial institutions which consider contract as collateral, or through the agribusiness which can provide forward payment or inputs (Rama/Wilkinson 2008: 55,56, Reardon et al. 2004, Vermeulen/Cotula 2010: 40, Da Silva 2005, Kirsten/Sartorius 2002, UNCTAD 2009: 119, De Schutter 2011a: 262, 2011b: par. 8, Eaton/Shepherd 2001). Contract schemes have been found to increase farmers’ incomes from 10% to 100% in Guatemala, Kenya or Indonesia, and improve farm administration by demanding record keeping (UNCTAD 2009: 137, 147, Da Silva 2005).

Issues for investigation are the nature and performance of the schemes as well as dependencies and marginalization. It is argued that technological advances are only passed to a minority of contractors, or do not support development objectives (Meliczek 2000 in Kirsten/Sartorius 2002). Participation in contract farming usually requires some investment by the producer. This might lock in producers into specific product markets or value chain segments, or weakening their bargaining power (Farina/Reardon 2001, UNCTAD 2009: 147). Investment can lead to debt, which farmers may not be able to repay due to unfavorable market or production conditions (De Schutter 2011b: par. 22). Only farmers with sufficient land access can participate, which are thus not the poorest of the poor. Small-scale producers who lack assets might be marginalized and excluded from markets (Kirsten/Sartorius 2002, Rama/Wilkinson 2008: 56). As contract farming expands, landlessness increases (Little 1994 in Kirsten/Sartorius 2002).

There is evidence of disrupted power relations within farm households. Studies found that contracts are usually signed by men, even though farming is done by women. Women were found to lose their decision making power, when crops are produced for cash and markets, rather than for local consumption. Studies also show that household food security and children’s health and education gain more when women’s income is increased (Key/Runsten 1999 in Kirsten/Sartorius 2002, De Schutter 2011b: par. 21). Contract farmers usually focus, or have to focus on a small variety of crops which is easier to monitor, but to the detriment of risk diversification (UNCTAD 2009: 147). For instance, contract farming might divert production towards export oriented cash crops, which may lead to local food price increase and loss of biodiversity and soil erosion (De Schutter 2011b: par. 14). Farmers often have to bear the production and market risks, if the purchase price is not fixed (DeSchutter 2011a:
In some cases, companies make clear commitments to buy the product, taking the risk, in other cases, the company pays very late, or farmers suffer from rent-seeking intermediaries (Vermeulen/Cotula 2010: 46). Finally, as contract farming can lead to a loss of control over production and the decision which crops to produce and how, farmers can become wage-earning agricultural laborers on their own land, but without any employee’s benefits (e.g. sick leave, minimum wages) (De Schutter 2011b: par. 19). Benefits might not materialize immediately or automatically, but external support by e.g. governments is needed (FAO 2011a: 11). Similarly, agribusiness enterprises should seek to incorporate good practices in working with the farmers (De Schutter 2011b: par. 25). The success of the contracting scheme depends on several factors. Amongst others, farmers have to be well informed and their interests should be well represented in the negotiations, well-developed legal and institutional setting which ensures fair contract enforcement. The contract should include mutual assets to foster a stable relationship trust between the partners as well as agribusinesses should aim to enable linking the farmers to inputs, services and facilities (Kirsten/Sartorius 2002). More specifically, De Schutter (2011b) identifies 7 areas of consideration, also for the TNC:

1. long-term economic viability, all parties need sufficient incentives to respect the contract.
2. farmers organizations or NGOs should support farmers in negotiations. Farmers should contribute to the wording of the contract and receive a copy; also government agencies should receive a copy of the contract to reduce risks of abuse.
3. If women are expected to work for the contract, their name should be part of the contract.
4. The pricing mechanisms should be clear and transparent, e.g. how costs, risks and returns are reflected in the price. A minimum price should be provided, adjusted when market prices increase.
5. Quality standards need to be clear, and should be visually demonstrated to the farmers.
6. Environmental sustainability and agro-ecological production forms should be promoted.
7. Mediation and dispute settlement mechanism should be implemented, including regular meetings, forums, and conflict mediation by third parties, like NGOs.

Overall, local communities need to be empowered to negotiate and comply with contractual arrangement. National governments need to protect their rights and engage in complementary efforts to improve institutional and infrastructural environment (Badiane 2011).

4.2.2. JOINT VENTURES

Joint Ventures (JVs) consist of two or several partners, who share ownership, benefits and costs. Partners remain their individual legal status and do not merge into a single entity.
Each partner contributes to the joint venture: cash, land resources rights technology, knowhow and shares the production, marketing and financial risk. Smallholder farmers are thus equal business partners, having equal decision making roles in the business and not dependent on compensation, wages or market prices. Profits, which are not reinvested into the business, are shared among the partners. Clearly, when smallholder are numerous the dividends will be small relative to participation alternative business models based on wages or production, but might still have a high symbolic value. For the company, this scheme might provide profits through branding the products and reputation.

JVs are theoretically well documented, but experience difficulties in implementation. There needs to be a formal recognition of communal ownership of land, or legal means that individual plots can be pooled together. This scheme does not involve major changes in production systems and farmers might be impeded to keep small plots to produce for subsistence or local markets. Profit sharing has to be transparent, in particular as smallholder farmers or cooperatives might be inexperienced. Consequently, often commercial farmers or agribusiness have the main control over the decisions, and empowerment of farmers is still low. JVs are found to be most successful when oversight by governments and business capacities by farmers are high. Thus, governments, NGOs, development agencies need to provide information services, risk assessment, business advice, brokerage services and capacity building and can be an underwriter of smallholders’ business risks and help with legal assistance to support participation in JVs. Also third parties like banks, who are willing to provide loans is important. Production on small plots should be allowed and might support food security (Vermeulen/Cotula 2010: 59-72).

5. RISKS, BENEFITS AND CHALLENGES OF FDI

5.1. FOR HOST COUNTRIES

In relation to FDI in agriculture, a range of potential benefits and pitfalls are suggested: employment, technology transfers, knowhow and sustainable business models, market access, economic linkages, local funding, local processing and value added, entry of firms into the industry, skills development and management training, risk management systems and strategies, partnership for development, and transparency. Pitfalls are usually monopolist, cartels, manipulations of markets by speculators, undermining local business, land grabs, displacements of local farmers, local food insecurity, exploitation and damage of local natural resources and environment, risk of social instability, disruption of traditional farming and loss of livelihood for subsistence farmers or dependence on foreign investors (McNellis 2009: 22,
Selby 2009, UNCTAD 2009: 94, 133, Hallam 2009). The impact varies depending on the context and the nature of FDI or TNC participation and on how national governments manage FDI in context of their national development goals (UNCTAD 2009: 94). In the following, a few aspects related to FDI or TNC involvement are reviewed.

**Fiscal revenues**: Governments can benefit of fiscal revenues. Empirical evidence is, however, scarce. TNCs may aid the formalization of an otherwise informal economy, where the processes of standardization allow measurement of various aspects of production, cost and revenue and thus a possibility to collect taxes (UNCTAD 2009: 94, 154). However, it should be kept in mind that in the course of economic globalization, states increasingly turn into “competition states” (Hirsch 1995, Jessop 1994). Aiming to attract economic and financial actors to entails the creation of a favorable business environment in which taxes for companies are usually kept low.

**Infrastructure development**: TNCs’ investment in infrastructure can benefit other farmers not related to the TNC. There is evidence that TNC in Mozambique has contributed to local infrastructure, water supply, electrification and support for schools and the local hospital (UNCTAD 2009: 154).

**Employment**: Employment is usually named as first benefit of TNC involvement. As TNCs usually strive for commercialization, capital-intensive and labor saving production long-term employment opportunities might be small, or poorly paid as TNCs source cheap labor and may pass low market prices onto workers. If jobs are created they might be taken up from laborers abroad and local farmers might be driven out of business. Employment is generated in labor intensive industries, such as floriculture or tea in Colombia, Ecuador, Kenya or Ethiopia, where TNCs have provide up to 55 000 jobs. However, net employment creation may be small, as farmers may have given up their old occupation or self-employment. TNCs may create jobs by linking various segments of the value chain, and thus create off-farm employment, e.g. resulting from horticulture export. The question remains how much rural communities profit from the type (un/skilled) of employment offered and which effect for development it entails. There is evidence that TNCs sometimes offer skilled and better paid employment (FAO 2011a: 6, 10, UNCTAD 2009: 143). In contract farming, farmers might benefit from learning record keeping or improving management methods. But sometimes the acquired skills are highly specific and not transferable (Eaton/Sherpherd 2001). As agriculture accounts for 70% of child labor, in particular plantation work, it is important to investigate how TNCs and FDI affect this issue. Also the impact on women needs to be clarified. Case studies have found that as market access within contract farming schemes increases, women
increasingly lose control over food production, and men take over control (FAO 2011a: 6, 10, UNCTAD 2009: 143).

**Technology transfers and innovation:** The world’s largest TNCs in food, beverages and tobacco have for more than half of the world’s patented innovation (cp. Alfranca et al. 2003). On the positive side, technology transfers could occur. For instance, Brazil and Mexico, which hosted US manufacturing FDI have also received investment in R&D (Rama/Wilkinson 2008: 57). Spillovers are said to be higher in Greenfield investment and lower in M&As (Crespo/Fontura 2007: 413-414). Transfers to domestic firms can occur by hiring workers who have previously worked for TNCs. In either case, the domestic producers must have a minimum R&D endowment or capabilities to imitate and incorporate the benefits of the positive spillovers, which is, however, often constrained by human and financial resources (Rama/Wilkinson 2008: 58, UNCTAD 2009: 141).

There are also challenges involved. For instance, technologies used on TNC owned farms might not diffuse to local farmers. There are concerns that the transferred technology might not be suitable as utilization is geographically or climatically constrained (UNCTAD 2009: 138-140). For instance, it has been found that TNC’s R&D focuses mainly on commercial crops and only 1% of R&D spending went towards crops which are important in developing countries (cp. UNCTAD 2009:138). Thus, there is hardly adaptive R&D procured in the host country, such that the host country’s innovative capacity and development of domestic R&D may be “hollowed out”, or that technologies are introduced which harm rather than support the sector. Further concerns are that domestic gene resources may be unrightfully patented by TNCs, and used for benefit generation in other markets, without a fair sharing of the accrued benefits (cp. Several sources in Rama/Wilkinson 2008: 57). Also institutional asymmetries or factors such as culture and language might delay the technology adoption (Crespo/Fontura 2007).

**Competition and market power:** By integrating vertically in the host economy, TNCs can gain monopoly advantages, decrease competitiveness with negative impact on consumers. For instance, international food and feed cartels were involved in illegal price fixing during 1996-2002 (Rama/Wilkinson 2008: 56). The upstream sectors of the agri-food value chain are also quite concentrated, as noted in section 3.2. How TNCs enter the market affects competitiveness: Greenfield investment may increase level of competition as opposed to entry by acquisition of a domestic firm. It can also support market growth if it targets infrastructure facilities. In some dynamic markets, increased rivalry between TNCs and incumbents may stimulate competitions, e.g. in the Brazilian biofuel sector. M&A may raise the level of
industrial concentration in developing countries. In very dynamic markets, small foreign investors could enter next to the large TNCs, and oligopolistic rivalry could occur, resulting in a decrease of consumer prices for some processed food stuffs. However, this is more likely to occur in the largest and more affluent developing countries (Tozanil 2005, Rama/Wilkinson 2008: 54, 56).

TNC involvement in production can result in higher market concentration. Compared to large-scale and capital-intensive production, small-holder production is usually uncompetitive and not viable for integration in the industry. Due to economies of scale, large scale plantations produce large volumes at low cost and have a higher productivity per labor. Small scale farmers tend to substitute family labor for capital and are typically more resource-efficient and more productive per hectare. Large scale farms are usually competitive as the price for food does not reflect the social and environmental cost of production (De Schutter 2011a: 260).

In contract farming schemes offer opportunities to abuse asymmetric power relations due to the unevenly distributed market power. TNCs have been found to abuse their market power and depress rural wages, transfer production risks to farmers and engage in unfair practices, disempowering farmers (Kirsten/Sartorius 2002, Bruinsma 2003). In light of the market structure, producer organizations should bundle their power to confront the power asymmetries (UNCTAD 2009: 152).

**Food security**: Food security has several components. *Availability of food*: TNC involvement is likely to increase overall production of certain crops, which are often cash crop and/or produced for export. Through direct competition in the market, competition for resources might drive small-scale farmers out of production. The merits of technology transfer to increase productivity have been discussed above. *Access to food*: marginalization of farmers or very high productivity in the industry which can have negative impact on employment and income could decrease access to food. Infrastructure development or fair transmission of productivity gains could improve access to food. *Stability of supply*: monoculture production, which is often required when collaborating with TNCs, can increase farmer’s production risk. Entry of supermarkets or other manufacturing TNCs could increase stability of supply. *Food utilization*: Knowledge about risks and safety standards could be fostered and disseminated by the TNC (UNCTAD 2009: 160).

The *environmental impact* of TNCs depends on the specific crop and activity, production technology, nature and scale of operation, and host countries’ and international regulations and rules. For instance, in the cut flowers industries TNCs have adopted environmentally
friendly farming technologies, e.g. integrated pest management systems (Wee/Arnold 2009: UNCTAD 2009: 155), efficient irrigation and fertilization. An intensification of agriculture can lead to negative environmental impacts such as land degradation or resources depletion. For instance, TNC involvement in Latin American Banana plantations in the 1980s has caused severe problems, e.g. polluting Costa Rica’s Atlantic region, or exposing workers to Nemagon. TNC participation, for instance in soybean production in Brazil, might induce further deforestation and biodiversity loss due to lack of a fair impact assessment before TNC entry. Environmental standards or certification schemes have been introduced to improve their corporate image and offer differentiated products. Whether these schemes are truly effective and sustainable is sometimes questioned (UNCTAD 2009: 155, 156, FAO 2011a: 11, 12).

With increasing large-scale land acquisitions, the exploitation of fresh water sources becomes an issue, due to possible industrial agricultural production and large-scale irrigation schemes. For instance, recent land deals outstrip the water availability in the Nile basin. Also, planned water infrastructure projects at the Niger delta are expected to deprive the floodplains of 70% with unforeseeable effects for the local communities’ food security (GRAIN 2012)

Overall, a trend towards a commodification of nature is observed, in particular in relation to large-scale land acquisition where land and water resources are sold. This entails a privatization of common resources on which certain groups rely (De Schutter 2011b). These practices reduce nature to a commercial value, marginalizing other forms of valuation, appreciation and elements of nature, which could, however, help to achieve its protection (Brand 2009, Görg 2004).

**Overall effect on economy:** Production arrangements like the agri-food value chain have implications on how developing country firms and workers are integrated in the global economy and which benefits for growth and development can be reaped. Global value chains can provide a stepping stone for integration in the global economy, facilitate access to markets and competitive imports for production and technology transfers. However, it can also lock countries into low-value added activities based on their competitive advantage which is often labor force with adverse implications for learning or development (Staritz 2012b: 6).32 Therefore, developing countries adopt upgrading strategies (cp. Rama/Wilkinson 2008: 52). Several concepts for upgrading, i.e. improving the position in the international economy, have been proposed: functional upgrading, process upgrading by gaining in efficiency, product

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32 Hopkins and Wallerstein (1977:117) have stressed that these global power relations and exploitative structure lead to a reproduction of a hierarchical world system consisting in core and periphery. Provided that most developing countries have the same competitive advantage, also external markets (cp. Staritz 2012b: 7)
upgrading, or inter-chain upgrading (Humphrey/Schmitz 2002). The power relations among
the different actors and the flow of resources determine the upgrading processes and in
general the prospect for the developing country. Therefore, policies should ensure e.g. tax
contributions and increased local linkages as well as provide firms/producers with new
opportunities which allow them to increase income and capture value added, rather than
focusing only on the efficiency gains in already existing production processes (Staritz 2012b:
12, 15, 18).

5.2. STRATEGIES OF TRANSNATIONAL CORPORATIONS
TNCs often adopt unilateral voluntary measures, such as corporate social responsibility
strategies. According to an UNCTAD study of the 100 largest food and beverage TNCs, a
third refers to relationship with farmers in their CSR strategies (UNCTAD 2009: 180).
Broadly, CSR can be defined as the contribution of business to sustainable development
(UNDESA 2007). It usually refers to a range of voluntary initiatives which aim to minimize
corporate bad practices and are beyond law and philanthropy. CSR instruments include codes
of conduct, guidelines and principles, environmental management systems, company-
community relations, sustainability reporting, monitoring or stakeholder dialogues (Utting
2008: 959). Agribusiness companies often adopt unilateral measures to monitor compliance
with social standards in the supply chain, e.g. adopting codes of conduct to ensure that their
suppliers comply with requirements such as freedom of association, safety at work,
prohibition of child labour, or may conclude international framework agreements (IFAs) (De
Schutter 2009a: par 21, 22). There are a range of multi-stakeholder initiatives, such as the
United Nations Global Compact, Global Reporting Initiative, allowing to better coordinate
unilateral activities regarding e.g. knowledge transfer or community building. CRS principles
can also refer to schemes specific for agriculture or specific commodities, e.g. International
Cocoa Imitative, Common Code for the Coffee Community Association, Roundtable on
Reasons to adopt unilateral voluntary measures are that firms have previously received
criticism for their practices, the industry is involved with recognized social responsibility
issues, the reputation or brand is commercially important or the firms’ sales are vulnerable to
organized consumer boycotts or commercial sanctions. Proactive CSR is also perceived as
good business practice associated with the hope to gain positive public recognition, as many
customers claim that their purchases are influenced by ethical considerations (UNCTAD
1999: 34, 37).
In general, there remains a gap between CSR rhetoric and policies. Only a small fraction of all TNCs seriously engages into these practices. By 2007, UN Global Compact, which has minimal reporting requirements for members had 3639 participating companies registered, of which 855 were ‘inactive’ and 413 ‘non-communicating’ (Utting 2008: 964,5). Those CSR strategies are found to have limitations: They are often market-driven, shaped in industrial countries – as the TNC has matured there using operating standards – and transferred through trade, investment or development assistance (UNDESA 2007, UNCTAS 1999: 14). They might thus prioritize issues which are subject to international and not local concern. CSR standards are frequently formulated without involvement of governments in host countries, and may thus have only little impact on the achievement of the overall social and environmental goals. If CSR practices in the form of corporate conduct and certification schemes are implemented through the supply chain, they may have the positive effect of creating opportunities of niche marketing, but can also be an impediment for market access. Along the value chain, cost and benefits may not be distributed equally, as costs of standards may accrue to producers and benefits to the retailer (UNDESA 2007).

In light of the limitations, these tools are not a substitute for protective regulatory measures by the Government. To mitigate negative impacts of CRS, governments can play a role in promoting CSR initiatives (De Schutter 2009a: par. 21, UNDESA 2007). Since a few years, governments and NGOs in the middle and low income countries have increased efforts to adapt the CSR agenda, and actively seek to engage businesses to work towards public benefit or poverty reduction and might have benefits for competitiveness as a whole. Thus, a clear vision of national or regional development strategies can increase success of corporate contribution to development (ibid). Overall, governments should devise and enforce minimal standards for labour and environment, even though they might collide with TNCs’ interests. Governments might not dare to impose too strict restrictions fearing that the corporation might leave the country (De Schutter 2004: 2,3).

In view of CSR’s limitations, Utting (2008) observes a shift from CSR and voluntary initiatives to an increased demand for accountability and law and public policies. Corporate accountability focuses on corporate obligations, the role of public policy and law and traditional regulatory organizations and the possibility of penalties in case of non-compliance.

33 The government policies to promote goals related to CSR may vary according to the size of the domestic market, the export orientation, presence and willingness of international companies and stakeholders to work together. In some cases governments aim to become industry wide standard setters by adopting specific labelling or certification schemes, or grant tax reduction for the adoption of CSR practices (UN DESA 2007).
and imbalance of power relations. The movement also directs efforts towards individuals or communities to use the legal system to seek redress for injustice (ibid: 960, 965, 969).

Regarding TNCs unilateral codes of conduct for their engagement with suppliers, De Schutter (2009a: par. 23) stresses several requirements: (i) The code should go beyond the minimum requirements of domestic legislation or international labour standards. (ii) The codes should avoid shifting all burden of compliance to the supplier, but should instead provide support e.g. by providing technical capacity or funding monitoring procedures. (iii) The codes should apply for the whole supply chain, also to subcontractors of the suppliers. (iv) A lack of compliance should lead to corrective measures which are supported by the buyer and should not lead to the end of the business relationship. (v) The codes should be binding for the company and failure to implement them should come at a cost.

In light of their general investment strategies, Hebebrand (2011) suggests TNCs to adopt less risk-averse approach to investment in developing countries as well as to adopt a long-term perspective and a more patient approach on investment so that benefits can materialize.

6. POLICY CHALLENGES

To maximize development benefit from FDI, three strategies are identified in the literature:

Host governments should consider which role FDI could play in the overall development strategy. A comprehensive investment strategy should be formulated in context of the agricultural development strategy. The social and environmental impacts should be assessed carefully. In these regards, host countries may wish to consider several factors on which the success of FDI may depend on. Therefore, investments should: (i) match existing domestic resources (e.g. taxes, water pricing policies), (ii) comply with domestic and international labor and environmental standards and policies, (iii) contribute to food security strategies, (iv) support commodity supply for global and/or local markets, (v) promote public services, e.g. agricultural infrastructure, (vi) create on/off farm employment opportunities, (vii) transfer technology and R&D, (viii) procure inputs locally, (ix) distribute revenues, and (x) protect the environment (e.g. FAO 2011, UNCTAD 2009, Hallam 2009).

Host countries may wish to ensure that an adequate policy and legal framework is in place, which could include e.g. conflict resolution mechanisms or means to settle disputes and entry. The legal framework might be based on domestic law and international agreements (Hallam 2009). FAO (2011) suggests that the rising interest in investment, governments can be more selective in their choice of investors and in demanding compliance with standards or policies. Policy framework could thus target other crucial policy areas such as fiscal
reform to ensure that governments can benefit from TNC’s tax revenues, which can be used for development purposes, or implement competition laws which prevent TNCs from abusing their power. The adoption of an integrated policy approach may also comprise policies in areas of infrastructure, competition, trade, and R&D. Several of these considerations require that governments have adequate institutional and financial capacity to monitor activities by foreign firms, enforce standards and be able to penalize misbehavior. Investment may only have a positive impact on agricultural development if the sector is fit to take advantage of the spillover effects, e.g. that farmers can benefit from new technologies.

**Government should support local farmers to be able to take advantage of the investment.** This can include the promotion of linkages through contractual arrangements with the aim to upgrade their capacities and increase productivity. Farmers should be supported by acquiring skills and opportunities, which e.g. increase their bargaining power and make them more equitable partners vis-à-vis the TNCs. Therefore, host countries should provide: (i) education and training programmes for local farmers, networking, and peer support, possibly by graduates who have received training and can act as channel through which knowhow and technologies are transferred to, (ii) encouragement and support for farmers to organize themselves in the market, (iii) ensure that farmers have links to credit markets, as a better capital base is necessary to maintain farm land, purchase equipment. (iv) Governments should increase investments into public goods’ provision, like infrastructure to facilitate production and provide business opportunities also for remote farmers, or information services which provide farmers with details about prices, quality standards or market trends. (v) Host governments, farmers’ organizations or NGOs should support farmers in negotiations and help in developing model contracts for contract farming schemes or joint ventures, legal advice, business or management advice. Host countries may also wish to include more explicit regulation on contract farming in domestic legislation and offer possibility of dispute settlement mechanisms and mediation (UNCTAD 2009, FAO 2011a, Vermeulen/Cotula 2010). (vi) Finally, host governments may wish to strengthen functioning of the tenure system and security of tenure or rights over land for smallholders and rural communities as well as farmers’ bargaining power against TNCs (De Schutter 2011a).

Host countries may wish to establish a multi-stakeholder mechanism with effective participation of smallholders to discuss potential role of TNCs (UNCTAD 2009: 191).
7. CONCLUSION

The benefits of FDI such as employment opportunities, technology transfer, fiscal revenues, food security as well as the risks such as environmental and social impacts, land grab, competition, abuse of market power and food insecurity vary according to the context and nature of FDI and on how host governments manage FDI in context of their national development strategies.

Based on case study and quantitative analyses, several trends are discussed in the literature:

- FDI and TNC involvement in agriculture has increased over the last years, mainly in up- and downstream segments of the global agri-food value chain. Investment in land resources has increased as a consequence of increased commodity prices.
- Large-scale land acquisition should be the last resort when no other investment model can be better to ensure human rights and the right to food. Governments need to comply with their human rights obligations, and support alternative business models. These processes should be supported by international or regional frameworks which could help to define how rights of land users should be protected and how local communities can be involved.
- Under certain conditions, inclusive business models such as contract farming or joint ventures may be successful in meeting the long-term needs of the local population and in full realization of human rights. Therefore, strengthening the capacities and opportunities of smallholder frames is indispensible such that positive spillovers of investment can occur.
- Also TNCs should engage in it as fair and genuine economic activity by providing fair and transparent pricing mechanisms, support sustainable agro-ecological production forms, take responsibility for production risk, and refrain from abusing the unequal bargaining position through depressing wages or prices.
- To achieve agricultural development and poverty reduction, public investment is found to be more effective than private investment. Thus, the active involvement of host governments may be needed, in (i) channeling investment into most beneficial and needed area, (ii) investing in public good provision and agricultural R&D, (iii) strengthen farmers capacities and facilitating farmers’ access to capital and financial services, support farmers in organizing themselves, provide information services and social security and thus enhance their bargaining power, and (iv) performing environmental impact assessment, and monitor TNCs compliance with standards.
Overall, agricultural development strategies emphasize the role of the government to guide private investments and strengthen smallholder farmers. As local communities are usually a diverse group with diverging interests, a multi-stakeholder mechanism with effective participation seems most promising to discuss the role and merits of TNC and FDI.

REFERENCES


WEBPAGES
APPENDIX

Table A1: Comparison of FDI inflows and net cross-border M&A sales in agriculture and food processing between 1990-2008, in million USD

<table>
<thead>
<tr>
<th></th>
<th>Net cross-border M&amp;As</th>
<th>FDI inflows</th>
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<tr>
<td></td>
<td>Food processing (manufacturing)</td>
<td>Agriculture (primary)</td>
<td>Food processing (manufacturing)</td>
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<td>1990</td>
<td>9261</td>
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<td>4151</td>
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<td>2008</td>
<td>86338</td>
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</table>

Source: UNCTAD 2009: 115
Figure A1: A simplified illustration of a typical agri-food global value chain including types and channels of TNCs and their potential impacts on the sector.

Source: information from UNCTAD 2009:107, 134
Table A2: Top 10 non-financial TNCs in selected segments of the agri-food value chain. TNCs are ranked by foreign assets in 2007.

<table>
<thead>
<tr>
<th>INPUT SUPPLY</th>
<th>AGRICULTRE-BASED AND PLANTATIONS</th>
<th>FOOD AND BEVERAGE</th>
<th>FOOD RETAIL</th>
</tr>
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<td>Home ec.</td>
<td>Foreign assets</td>
<td>Corp.</td>
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<td>Sime Darby Berhad</td>
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<td>Bayer AG</td>
<td>Germany</td>
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<td>Fresh Del Monte produce</td>
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