



COMMITTEE ON WORLD FOOD SECURITY
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Item V
POLICY ROUNDTABLE HOW TO INCREASE FOOD SECURITY AND SMALLHOLDER-SENSITIVE INVESTMENT IN AGRICULTURE

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Matters to be brought to the attention of CFS

The Committee:

- Underlines the paramount importance of increased and improved investment in agriculture for achieving food security and nutrition for all
- Recognizes that the bulk of investment in agriculture is undertaken by a multiplicity of private actors, in particular farmers themselves, their cooperatives and other rural enterprises
- Acknowledges that smallholder farmers, many of which are women, play a central role in producing most of the food consumed locally in many developing regions and are the primary investors in agriculture in many developing countries
- Welcomes the report of the High Level panel of Experts (HLPE) on “Land Tenure and International Investments in Agriculture” and recommends its consideration by all stakeholders.*

The Committee is also asked to consider the following set of recommendations to member governments, international partners and other stakeholders. The recommendations are derived from this background document and the HLPE Report on Land Tenure and International Investments in Agriculture:

- i. Ensure that public investment, services, and policies for agriculture give due priority to supporting and complementing smallholders’ own investment
- ii. Ensure that agricultural policies and public investment gives priority to food production and nutrition, with a focus on strengthening sustainable smallholder food production and on fostering smallholder-inclusive local, national and regional food markets
- iii. Ensure that public policies and investments play a catalytic role in the formation of partnerships among agricultural investors, including private-public partnerships
- iv. Give due attention to new market and environmental risks facing smallholder agriculture and design investments, services and policies so as to mitigate these risks and strengthen the ability of smallholder farmers to manage them. Align investment incentives in agriculture with environmental sustainability considerations
- v. Actively involve organizations representing agricultural producers, notably smallholders and agricultural workers, in the formulation, implementation and evaluation of policies for investment in agriculture and in the design of investment programmes in agriculture and food value chains
- vi. Make use, on a voluntary basis, of the framework for “Mapping food security actions at country level” to report periodically to the Committee on relevant actions taken at national level with regard to public and private investment in agriculture, including on the implementation of the recommendations above, and to share lessons learned from national experiences

Furthermore the Committee:

- vii. Requests the HLPE to include in its plans for future work a comparative study of constraints to smallholder investment in agriculture in different contexts with policy options for addressing these constraints. This should include a comparative assessment of strategies for linking smallholders to food value chains in national and regional markets and what can be learned from different experiences
- viii. Supports launching an inclusive consultation process within the CFS for the development and the broader ownership of principles for responsible agricultural investment that enhance food security and nutrition to be overseen by the CFS Bureau with the assistance of the joint Secretariat and in close collaboration with the Advisory Group and the involvement of all interested stakeholders with a view to submitting these principles for the consideration of CFS
- ix. Acknowledges that the first step of this inclusive consultation process will be to find agreement on the scope, purpose, intended recipients and structure of these principles as well as on the format of the consultation process, taking into account existing frameworks - including the RAI principles developed by FAO, IFAD, UNCTAD and the World Bank - and respecting the need to maintain full coherence and avoid duplication with the Voluntary Guidelines on Responsible Governance of Tenure of Land and other Natural Resources, which are expected to be approved prior to the start of this consultation process
- x. Recommends the explicit recognition of *smallholder-sensitive investment* as defined in this document (para 5) among the criteria for characterizing responsible corporate investment in agriculture.

* The HLPE Report on Land Tenure and International Investments in Agriculture including the The Summary and Recommendations for Policymakers (CFS:2011/4 Add.1) should be considered along with this background document.

1. **What this paper is about.** This paper focuses on smallholder investment and how to support it. It also considers corporate investment in agriculture and the need to promote synergy between this and smallholder investment. The important role that public policies and investment must play to strengthen smallholder investment and to promote smallholder-sensitive corporate investment is discussed. The paper concludes by highlighting some key policy implications. Specific recommendations for the CFS are presented in the preceding recommendation box.

I. EMERGING CHALLENGES

2. **Growing concern about food and nutrition insecurity.** Persistently high numbers of undernourished people, coupled with increasing global food price volatility and price spikes, have raised renewed concerns in recent years about food and nutrition insecurity in developing

countries. Some of the underlying causes of these phenomena directly concern agriculture, as they relate to:

- a) A growing imbalance between food supply and demand
- b) Supply instability
- c) A shrinking resource base for food production.
- d) Poorly functioning agricultural markets, which do not cater well to the needs of vulnerable producers or poor consumers are another key factor.

3. **Three major sets of challenges for agriculture.** Today, agriculture faces three sets of major challenges. First, it needs to ensure adequate food and nutrition for a rapidly growing world population with rising incomes and changing diets. Second, agriculture needs to enable a large percentage of the one billion rural people living in dire poverty to achieve decent livelihoods as farmers, livestock producers, artisanal fishers, and workers in agricultural supply chains. Third, agriculture must become more sustainable and resilient to deal with a deteriorating environment and with climate change. Meeting all these challenges requires increasing and improving the quality of investment in agriculture.

4. **Centrality of smallholder agriculture.** More than 85% of agricultural holdings in developing countries are below 2 ha¹, and in Asia and sub-Saharan Africa about 80% of farmland belongs to, or is cultivated by, smallholders². Therefore, smallholders' own investment is by far the primary investment in agriculture in many developing countries. Enhancing smallholders' own investment is thus critical to improving food security and nutrition and to reducing rural poverty. It is currently estimated that smallholders produce up to 80% of food consumed locally in sub-Saharan Africa and Asia³. Enhancing the quality of smallholders' investment is also key to achieving important environmental goals such as reducing water scarcity, restoring soils, preserving biodiversity, and mitigating climate change.

5. **Defining smallholder-sensitive investment.** Virtually any investment in agriculture can have an impact on smallholder farmers. Agricultural investments affect the natural resource base for agriculture; they affect the market opportunities available to smallholders; they can generate pressure on policymaking processes that may adversely affect smallholders; and they affect the ability of smallholders to increase their capital base. *In this context, smallholder-sensitive means that investments (both public and private) are mindful of, and attentive to respecting the rights, interests and potential of smallholder agriculture and of family farmers.*⁴ This goes beyond preserving the rights of smallholders vis-à-vis other investors by highlighting the importance of investment in supporting the potential of smallholder agriculture to contribute to food security and nutrition, poverty reduction, and key environmental goals.

II. KEY ISSUES

A. INADEQUACY OF CURRENT INVESTMENT IN AGRICULTURE

6. **Large gaps between investment and needs.** At present, not enough resources are going into developing country agriculture to enable it to meet current and emerging challenges. This is

¹ IFPRI, "Food security under stress from price volatility, agricultural neglect, climate change and Recession" 2009. Presentation prepared for IPC Spring Seminar Salzburg, May 11, 2009 (original data source FAO Agricultural World Census.)

² IFAD. Governing Council 2010 – background paper prepared for the High Level Panel, "From summit resolutions to farmers' fields: Climate change, food security and smallholder agriculture".

³ Ibid

⁴ Private investment in this paper is broadly defined to include investment by smallholders and cooperatives as well as large scale investment by corporate or commercial interests. What is small scale and large investment is of course context specific.

perhaps most evident in relation to agricultural R&D and technology development, human capital development and management and enhancement of natural resources. Large gaps also exist in infrastructure development – for rural energy, irrigation, post-harvest handling and storage, processing, and transportation.

7. In 2009, FAO estimated a need for 83 billion dollars of annual net investment in developing country agriculture and in downstream sections of agricultural supply chains, simply to meet demand for food resulting from a growing global population.⁵ In June 2011, the Global Harvest Initiative made its own estimate and calculated that 90 billion dollars a year is needed in investment in developing country agriculture to boost productivity and feed the world's population in 2050.⁶

8. A comparative analysis of investment levels in different regions shows that the investment gap is unevenly distributed. For instance, capital stock per agricultural worker shows growing disparities and inequalities among agricultural producers in different countries and regions. According to studies conducted by FAO in 2009,⁷ the average capital stock per worker in 2005 amounted to 2,780 dollars in sub-Saharan Africa, against 3,880 dollars in South Asia, 11,610 dollars in the Near East and North Africa, and 25,240 dollars in Latin America and the Caribbean. Projections to 2050 suggested a considerable widening of this gap in capital endowment per capita.

9. **The consequences of inadequate investment and inappropriate policies.** One major consequence of inadequate investment in agriculture is insufficient growth in agricultural production compared to demand growth. In the past couple of decades, yield growth has declined in many parts of the world, notably in areas that witnessed an increase of yields during the Green Revolution. The OECD FAO Agricultural Outlook 2011-2020 projects a growth in agricultural production of only 1.7% globally in this decade, compared to 2.6% in the last one. Insufficient or misguided public investment in agriculture and inappropriate policies have also contributed to the marginalization of smallholder and family agriculture and to the difficulties faced by small farmers as investors.

10. **Some signs of a trend reversal – more public resources spent on agriculture.** Globally, government spending in agriculture increased in terms of levels and intensity ratio between 1980-2007, but the share of spending decreased, and the trend was less favourable to agriculture in sub-Saharan Africa and in agriculture-based countries.⁸ Overseas Development Aid (ODA) to agriculture also decreased in the 1990s and early 2000s, but has recently begun to pick up again. According to OECD figures, for instance, aid to agriculture as a percentage of total ODA (bilateral and multilateral) was as low as 3.7% in 2006, and up to 6% in 2009, compared with figures three times as large in the 1980s. In the past decade there has also been progress in public expenditure in agriculture in some developing countries, sometimes in a regional framework. The example of the NEPAD/CAADP process is probably the most relevant one. South-South public investment flows have also grown significantly in the past decade, both in and around agriculture.

11. Growing public expenditure in and for agriculture are a welcome development, and the trend needs to grow. Given the recent economic and financial crises affecting many countries directly and through pressure on ODA, there are however limits to what public investment can

⁵ FAO. "How to Feed the World in 2050." Paper prepared for the High Level Expert-Forum on Feeding the World in 2050. Rome, October 2009

⁶ Global Harvest Initiative. "Enhancing Private Sector Involvement in Agricultural and Rural Infrastructure Development". Policy Brief (June 2011).

⁷ J. Schmidhuber, J. Bruinsma, and G. Bedeker. "Capital requirements for agriculture in developing countries to 2050." Paper prepared for the High Level Conference on Feeding the World in 2050. Rome, September 2009

⁸ IFPRI. *Statistics of Public Expenditure for Economic Development*. Washington, 2010

accomplish. Increasingly, private investment (starting from farmers' own investment) needs to play a leading role in unlocking the potential of agriculture as a driver of food security and nutrition, reduced poverty, and environmental benefits. In this regard, the impact of increased public expenditure in agriculture on food security and nutrition is largely linked to the extent to which this complements smallholder investment, with a focus on sustainable food production.

B. SMALLHOLDER AGRICULTURAL INVESTMENT: CHALLENGES AND OPPORTUNITIES

12. **Smallholder farmers as primary investors in agriculture.** As noted, smallholder and family farms constitute the vast majority of farms in developing countries, and they are estimated to support about 2 billion people⁹. Women constitute a large proportion of the rural workforce in agriculture – notably smallholder agriculture, amounting to an average of above 40% in the developing world, and even higher percentages in some regions¹⁰.

13. Smallholders mostly invest in farms, through activities to enhance the value of their natural and physical asset base – land, livestock, crop trees, on-farm buildings and infrastructure. Much of smallholders' investment in human and intellectual capital development in agriculture is also done on farm, both informally among household or community members, and through on-site extension visits and peer-based learning and innovation. The immediate proximity of farmers to the site of their investment activities makes them best attuned to the investment needs of their farms. However, this very proximity makes it particularly difficult to put precise figures on the size of smallholder investment.

14. **Smallholder investment spans four main types of capital.** Broadly speaking, smallholder investment in agriculture spans four types of capital: human capital (resulting from training and from formal and informal education); intellectual capital (resulting from agricultural R&D and innovation, formal and informal); natural capital (maintenance, restoration, and improvement of the land, water, fishery, and forest base); and physical capital (building up assets such as livestock, equipment, farm buildings and infrastructure). Investment in these assets is supported by financial and social capital (social networks, organizations, norms of reciprocity, greater market bargaining power achieved through group formation, etc.). Different households, and different members within households, may engage in different types of investment, and have a different capital base.

15. Whether or not smallholder investment occurs and yields positive returns depends on many factors. For smallholder investment to support agriculture in meeting current challenges, it is not enough for investment to yield positive private economic returns. Rather, these need to be aligned with positive returns in terms of food security and nutrition, more resilient livelihoods, and environmental sustainability. To this end, it is of particular importance for smallholders to be able to invest in ways that help link them up to appropriate market opportunities, strengthen the resilience and environmental sustainability of their asset base and facilitate availability and access to nutrient-rich and diverse, culturally appropriate foods in local markets.

16. **Investment results from incentives, perceived risk, and assets/capital.** As is true for other private investors, smallholder investment decisions result from a combination of incentives, perceived risk, and available capital. Each one of these will be briefly considered in turn in the next paragraphs, as each can be the focus of enabling policies and complementary investment.

17. **A changing incentive framework.** As investors, smallholders respond to the incentives they face when deciding whether to invest money, time, or labour. For commercially-oriented

⁹ IFAD. Governing Council 2010

¹⁰ FAO. *State of Food and agriculture 2011*. Rome, 2011

farmers, incentives primarily result from price signals in relevant markets and from policies affecting trade and markets. At present, the market incentive framework for smallholders is changing due to higher agricultural and input prices and a transformation in the structure and functioning of food and agricultural markets. However, agricultural prices are transmitted to small farmers in ways that are significantly affected by policies. Price transmission from urban markets to farmers is also often difficult, partial, and delayed in many countries due to distance, poor infrastructure, and governance problems. This is a major problem hindering farmer investment for instance in parts of Africa, which has the largest proportion of population among regions living more than five hours away from a market town of at least 5,000 people.¹¹

18. For non-commercially oriented farmers, but also for many who regularly sell part of their produce, an important incentive to investment is also the need to produce for self-consumption. This can motivate a minimum of investment even in the absence of market-based incentives. Under these conditions, improving non-commercial investment can contribute to food security and nutrition.

19. **A worsening risk environment.** As all investors, smallholders also base their investment decisions on their assessment of the risks involved and on the tools they have to manage them. At present, in many parts of the developing world the risk environment faced by smallholders is worsening.

20. *Market-related risks* are increasing due to price volatility and to the transformation of agricultural supply chains. In particular, greater vertical and horizontal integration, higher and more stringent quality standards, new types of contractual arrangements and market institutions, result in a higher risk of market exclusion for smallholders. The latter often already have limited bargaining power in agricultural markets, and in many countries also face organizational obstacles. On the other hand, both smallholders and other actors in agricultural supply chains tend to face greater risks and transaction costs in dispersed chains than in more integrated ones.¹² *Environmental and climatic changes* also make investment more risky, rendering weather patterns and yields harder to anticipate, and crop failures more frequent. Increasingly, there are also new risks of loss of access to, or control over, land and other natural resources, due to resource degradation and competition.

21. At the household level, smallholders also have to take into account *risks related to anticipated or unanticipated household expenses*. Such risks need to be factored into smallholders' investment calculations because the capital base they can erode cannot always be neatly differentiated between the household as a "farming enterprise" and the household as a consumption unit.

22. **Information mechanisms shape perceptions of risks and incentives.** How incentives and risks factor into the decisions of smallholders as investors depends on the information mechanisms they have available. In many cases, smallholders operate with limited information about incentives and risks, and this affects the quality and timing of their investment decisions. Key types of information that can affect smallholder decisions concern market demand and prices, inputs and energy costs, weather patterns, and policies affecting agriculture and markets.

23. In many countries, farmers' organizations, private sector operators and others have invested in the development of better market information systems for small farmers in recent years. Over time, access to reliable information about market prices and market demand can support farmers not only in making informed decisions about what to sell, when, where, and at what prices, but also about what to produce and how. Better information systems concerning weather forecast, patterns of resource change, monitoring of extreme weather events and

¹¹ G. Livingston, S. Schonberger, and S. Delaney. "Sub-Saharan Africa: The state of smallholders in agriculture". Paper presented at the IFAD Conference on New Directions for Smallholder Agriculture, 24-25 January 2011

¹² Ibid.

droughts, and climate change scenario modelling, are also important in this regard and they are evolving in many parts of the world.

24. Information systems that can help smallholders make appropriate investment decisions are in many cases increasing their outreach in rural areas of developing countries thanks to information and communication technology and infrastructure. Mobile phone telephony in particular is making access to relevant information easier and affordable for a vast number of users in urban and, albeit less so, rural areas.¹³ However, information systems do not only require supportive technologies but also mechanisms to ensure reliability of information. In this regard, a range of actors and institutions can play critical roles – from farmers' organizations, traders, and other actors in agricultural supply chains, to public and private research, academic, and data collection institutions.

25. **The capital asset base for smallholder investment.** Finally, a determining factor for smallholder investment is availability of the necessary capital and access to the desired production assets. As noted, smallholder and family farmers can have access to a very diverse capital base, and the same is true of women and men (or different age groups) within the same households. The transaction costs associated with the use of their asset base may also vary significantly. However, some general considerations can be offered.

26. **Precarious tenure over natural capital.** A common constraint is related to precarious tenure over land, water, and other resources, which is worsening in many parts of the world due to various factors, with smallholders, on many occasions losing access to these resources. For women farmers, in particular, there is abundant evidence that lack of secure access and tenure is a major hindering factor for increasing productivity and improved food security. Women are also often most affected by loss of their tenure and use rights over natural resources in an environment of growing competition. Lack of secure tenure can be an especially serious constraint for investment among particular livelihood groups (e.g. pastoralists) and for indigenous peoples. Institutions governing tenure of natural resources may also make it challenging for smallholders to increase their asset base (e.g. through purchasing or renting land), which can often be a precondition for more effective investment.

27. Precarious tenure rights over land can have important indirect effects on the smallholders' ability to access other forms of capital, notably financial capital through formal institutions, to mitigate risk or for investment proper. They often affect the ability of women farmers to access membership in farmers' organizations (which may be intermediaries for access to inputs, technology, knowledge, and machinery), or their access to advisory services. Precarious tenure rights also reduce incentives for investment, particularly in the absence of well-organized land market institutions¹⁴. Where these rights are particularly threatened, the balance of incentives for investment between agriculture and other sectors (including away from rural areas) can shift in favour of the latter, which may result in growing pressure on small farmers to migrate to urban areas.

28. **Limited access to financial capital.** A second common constraint is related to access to financial capital and services. In order to invest in agriculture smallholders require a range of services, from credit, to savings, to insurance. However, smallholders often have limited or no access to formal sources of finance. Studies show that poor farmers in particular typically rely on savings, borrowing from family and friends, and various informal institutions to finance their investment as well as their consumption needs¹⁵. Although microfinance institutions have become

¹³ IFAD 2010. *IFAD Rural Poverty Report 2011. New realities, new challenges: new opportunities for tomorrow's generation*. Rome: IFAD..

¹⁴ Vice versa, for instance, Torero (2011) argues that improving opportunities for trade in land can strengthen incentives for farmers' investments. See M. Torero. "A framework for linking small farmers to markets". Paper presented at the IFAD Conference on new directions for smallholder agriculture, 24-25 January 2011, Rome

¹⁵ E.g. IFAD 2010.

relatively widespread in some rural areas in developing countries, the products they offer are generally inadequate to sustain significant investment in agricultural production. Many smallholder households recurrently incur significant debt to finance their production and consumption needs.

29. Today, the potential of supply-chain financing to meet smallholders' investment needs is attracting growing attention. In this framework, not only traders and input suppliers but also other actors in agricultural supply chains can become enablers of smallholder investment, based on a variety of contractual arrangements. So far, this is typically more prevalent in supply chains for high value products. However, depending on the nature of the contractual arrangement, other products (e.g. oilseeds, cereals) may also be involved. Of course, being embedded in supply chain arrangements, this approach to financing smallholders' investment carries the risks attached to these arrangements, in which smallholders often have more limited bargaining power than other actors.

30. **Poor access to human and intellectual capital.** A third type of capital that is critical for smallholders' investment in agriculture is human capital – and, different from, but related, intellectual capital. In this regard, critical bottlenecks and constraints are found particularly in two areas. The first area is agricultural R&D and the second is agricultural education and training. On both fronts, of particular importance is greater investment in capital formation at the local level in rural areas – through locally-based or linked R&D and education.

31. The human and intellectual capital of smallholders is partly a function of how well agricultural R&D systems operate, how sensitive they are to their needs, and how well disseminated and affordable their results. Globally, agricultural R&D systems remain inadequately sensitive to the needs of smallholders particularly in rainfed agriculture and in ill-favoured areas. Further, more focus on the role of agriculture in nutrition is needed, through research on crop varieties and techniques to maximize the nutritional content of foods.

32. The second area where key bottlenecks are found concerns human capital. Smallholders need robust and well-resourced education systems, including the integration of agricultural knowledge in primary and secondary education and specialized higher education. They need better quality curricula, well suited to confront the challenges that farmers face today. They also need educational opportunities equally accessible to poor farmers and to women farmers. Finally, they need greater recognition and utilization of their own local knowledge in agricultural innovation and in formal educational systems, as this knowledge is often of critical importance for locally suitable farming practices and culturally appropriate food production.

33. **The role of farmers' organizations in enhancing smallholder investment.** Rural producers' organizations, here referred to for simplicity as farmers' organizations (including organizations of livestock producers, artisanal fishers, and so forth), are key actors for strengthening smallholders' capacity to invest effectively in agriculture – and in sustainable food production in particular. Depending on their form, mandate, and capacity, such organizations can take on a range of functions that may result in increasing the incentives faced by smallholders, reduce the costs and risks they face, improve their access to information, and facilitate their access to capital. In addition, organizations can provide a setting for the pooling of farmers' assets, which enables them to achieve economies of scale in, for instance, processing, mobilizing additional financial or intellectual capital, and finding corporate partners for investment. In modern markets, farmers' organizations can facilitate economies of scale in marketing, both directly and in the context of value chain arrangements involving other private and public actors. Finally, strong organisations can play a critical role in protecting the interests of smallholders vis-à-vis other investors as well as in improving government agricultural policies.

C. SMALLHOLDER-SENSITIVE CORPORATE INVESTMENT IN AGRICULTURE

34. **Recent corporate investment in agricultural markets.** Since the turn of the millennium, corporate investment in agricultural supply chains appears to have grown in a number of developing countries, particularly in downstream segments of food chains. In many cases, corporate investment in these segments of the chains remains significantly larger than in agricultural production. Depending on context, however, corporate investors face a varying mix of incentives and risks to invest in different segments of the chains. These partly have to do with the comparative advantages of small vs. large farms in different settings. Also important is the nature of local policies and institutions and how they provide incentives or disincentives for corporate investors to engage in production as opposed to in upstream or downstream activities. The degree to which small farmers are organized and able to negotiate their interests is also a key factor.

35. The economic, social, and environmental impact of large-scale corporate investment in agriculture has been a source of much debate globally and also within CFS. Issues related to land-based investment have been addressed in discussions on the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests, and they have also been recently addressed in the report of the High Level Panel of Experts on Land Tenure and International Investment in Agriculture. Part of the on-going discussion within the CFS on the FAO, IFAD, UNCTAD, and World Bank Principles for Responsible Agricultural Investment also touch upon these issues. This paper does not duplicate this discussion, particularly as concerns land-based investment. Rather, its focus is on specifying the conditions that need to prevail to make corporate investment sensitive to smallholders so that *smallholders as investors* can benefit from this development.

36. **What smallholder-sensitive investment entails.** Making corporate investment smallholder-sensitive is partly about ensuring that it does not undermine the asset base and rights of smallholders nor their incentives to invest. More broadly, it entails ensuring that investment enhances the capacity of smallholder agriculture to contribute to food security and nutrition, reduce poverty, and achieve positive environmental goals. Consideration of these issues needs to be an integral part of what is understood as “responsible” investment in agriculture.

37. A key starting point is the realization that in many cases what prevents smallholders from being more effective investors is the result of policy and public investment choices, which need to be redressed to allow for fair competition and to reduce conflict with corporate investment.¹⁶ As well as direct support to smallholder agriculture, harnessing corporate investment to strengthen smallholders’ own investment can be critical in many areas where a significant proportion of agricultural holdings are small, have good potential for increasing productivity and commercialization but have bottlenecks that corporate investors could help address.

38. There is a growing literature on the mutual benefits that can result from business arrangements involving corporate investors in agriculture and agri-food chains and smallholders and wage workers. Byerlee recently summed up these benefits in terms of complementarity of assets, whereby smallholders or communities can contribute land, labour, and local knowledge, while corporate investors can contribute capital, access to markets and technology, and specialized knowledge.¹⁷ Others stress the importance of facilitated access to technical and financial assets and inputs and market-related information that smallholders can achieve through participation in vertically integrated supply chains. For instance, supply chain finance (including insurance services) is an area of particular interest in relation to smallholder-sensitive investment.

¹⁶ K. Deininger. “The farm size debate” and M. Rosenzweig “Barriers to farm profitability in India: Mechanization, scale, and credit markets”. Papers presented at conference on Agriculture for Development Revisited, University of California at Berkeley, 1-2 October 2010.

¹⁷ S. Byerlee, “Extent and role of corporate investments in agriculture.” Presentation made at FAO SOFA 2012 expert consultation. Rome, 7-8 April 2011

Some authors have questioned the scope for such “win-win” outcomes between corporate investors and smallholders unless issues of power symmetry are addressed.¹⁸

39. Depending on the nature of contractual arrangements between the two sets of actors, the assets that corporate investors contribute can enable smallholders to put their assets to more effective investment. Or, the assets of local communities can be put to productive investment by corporate investors, or both. The creation of employment opportunities for smallholders can in some cases lead to gains for the latter even if their own investment as producers decreases as a result of their involvement in corporate farming schemes¹⁹. In both cases, the outcome can be “smallholder-sensitive” investment if the rights, interests, and potential of smallholder investors to contribute to achieving the goals of food security and nutrition, environmental sustainability, and reduced poverty are respected and duly considered.

40. **Different models for smallholder-sensitive corporate investment.** There are a variety of business arrangements through which smallholder investment can be supported within corporate investment, depending on environmental, market, and institutional conditions and on the type of product at issue – though most non-land based corporate investments concentrate on labour-intensive crops. This diversity of models is also one of the findings of the on-going process of pilot-testing and development of the Principles for Responsible Agricultural Investment.

41. One source²⁰ lays out six types of such business arrangements: contract farming, management contracts, tenant farming and sharecropping, joint ventures, farmer-owned business and upstream/downstream business links. These may be used in various combinations, and have different characteristics in terms of how value is shared between the two groups of investors. Different models are better suited to different institutional and environmental contexts, asset base, and type of commodity produced. Different models may deliver greater benefits for smallholders in different circumstances, and the extent to which they do so largely depends on contractual details. These are in turn shaped by the incentives facing both groups of investors, the risks and transaction costs they face, and their respective bargaining power²¹ (primarily a function of smallholder organization, security of rights over natural resources, and equal access to information).

D. THE NEED FOR ENABLING PUBLIC POLICIES AND INVESTMENT

42. Boosting smallholder investment requires addressing the bottlenecks it faces in relation to incentives, risks, asset base, and information. Sound public policies as well as public investment are needed to achieve this. As more corporate investment gets underway, public policies and investment are also critical to promote synergies with smallholder agriculture to achieve food security and nutrition, poverty reduction, and positive environmental outcomes.

43. **The importance of policies and governance.** Enhanced private investment in any sector require a “good business environment,” peace and stability, the rule of law, good governance, clear property rights and enforceable contracts. These factors are not in place in many developing countries. For instance, corruption is a widespread problem making the costs of starting and managing a business (including a small farm) comparatively higher in many developing countries

¹⁸ O. De Schutter (2011), “How not to think of land grabbing: three critiques of large-scale investments in farmland.” *Journal of Peasant Studies*, 38:249-279.

¹⁹ Ibid.

²⁰ Vermeulen, S. and L. Cotula (2010). *Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders*. Rome and London: FAO and IIED

²¹ IFAD 2010

than in developed economies²². Instability of property rights is also a major risk factor (notably for smallholders) in many countries, and so is socio-political instability.

44. For agriculture, to these factors must be added an economic and agricultural policy framework that is not biased against agriculture and that yields favourable terms of trade and stable markets for agricultural producers – including in particular smallholders. To strengthen positive incentives to investment, it is also important to have policies in place that ensure that price signals adequately reflect market fundamentals, and that these signals are adequately transmitted to farmers. Policies promoting greater awareness of the nutritional and economic value of locally produced crops, or sensitizing consumers to the environmental footprint of the production of certain food items, can also have impact in affecting investors' incentives. Policies are also needed to protect the rights of smallholders (women and men), where competition between investors occurs. This may include competition over natural resources but also over markets or in processes defining R&D and technology development agendas. Policies should also protect the rights of wage workers in agriculture (particularly women), and to ensure that they can make decent wages and work in safe environments.

45. **Public investment in key public goods and services.** Investment in public goods and services is also critical to provide incentives for enhanced investment, reduce risks, and improve the accuracy of investors' information. In light of the challenges confronting agriculture, of particular importance today are public investment in agricultural R&D and technology (including locally-generated R&D and technology), natural resource conservation and restoration, agricultural education and training, data gathering and analysis on issues relevant to smallholder investment decisions.

46. There is solid evidence of substantial returns on public investment particularly in *agricultural R&D*, and also for public investment in marginal areas, both in terms of reducing poverty and in boosting agricultural growth (based on evidence from China, India, and Uganda).²³ In China and Thailand, public investment in agricultural R&D, infrastructure and education, have had both high marginal returns and a significant impact on poverty. Sustained high returns on public investment, particularly in R&D and roads, have also been found in India well beyond the early years of the Green Revolution.²⁴ Investment in public infrastructure also has a major role to play in facilitating private investment. This includes in particular transportation, energy, irrigation, and ICT infrastructure and related services. In turn, investment in infrastructure is critical for adaptation to, and mitigation of, climate change, and for creating better functioning markets.

47. **The challenges for improved public policies and investment.** The political economy of policy processes in many developing countries poses a challenging environment for smallholder agriculture, which typically represents a fragmented sector, with little capacity for organization and lobbying. As demonstrated in many government responses to the price hikes of the second half of the 2000s, policymakers often privilege the concerns of urban consumers over those of agricultural producers when it comes to prices and agricultural trade flows. The consequences in terms of discouraging investment in agriculture can be severe.

48. Besides political economy considerations, another challenge concerns the evidence base for agricultural policy making processes. For instance, the implications for smallholder producers

²² IFC. *Doing business 2011. Making a difference for entrepreneurs*. Washington, DC, 2011.

²³ Fan, S., L. Zhang and X. Zhang. 2004. "Reforms, investment and poverty in rural China." *Economic Development and Cultural Change* 52 (2); Fan, S., P. Hazell and T. Haque. 2000. "Targeting public investments by agro-ecological zone to achieve growth and poverty alleviation goals in rural India." *Food Policy* 25 (4);

Fan, S. and X. Zhang. 2008. "Public expenditure, growth and poverty reduction in rural Uganda." *African Development Review* 20(3).

²⁴ S. Fan and N. Rao. "Public investment, growth and rural poverty." in S. Fan (ed.). *Public expenditures, growth and poverty: Lessons from Developing Countries*. Baltimore, Johns Hopkins University Press, 2008.

of global price volatility are insufficiently understood in many countries, due to the complexity of transmission mechanisms. The impact of new environmental and climate-related phenomena on smallholder agriculture in different contexts is also insufficiently studied. The way gender roles in agriculture are changing as a result of market and environmental transformations is also an area where the evidence base for policy concerning agriculture is often weak.

49. A third challenge is policymaking across different arenas and institutions that need to be involved to shape a conducive environment for effective smallholder investment in agriculture. This includes ministries such as agriculture, environmental agencies, ministries of finance, planning, education, infrastructure, and so forth. As government policy has to aim at achieving a broad and complex set of goals - such as food security and nutrition and environmental restoration - policy decisions in all these areas need to be coordinated and send the same signals to investors.

50. **The critical role of farmers' organizations.** Critical to the effective design, implementation, and assessment of policies (but also of major public investment) is the participation of smallholder organizations. Also important is participation of agricultural workers' unions, where these exist, particularly when it comes to policies affecting corporate investment. At least since the 1990s, organizations of smallholder and family farmers have become more active in policy processes at various levels in many parts of the world, while in others they have a longer history. However, this is an area in which much progress is required. Women's participation in farmers organizations engaging in policy processes also remains below what is required to ensure that women farmers' investment needs are well reflected in policies and public investment.

51. Depending on the institutional set up of each country and on how policy processes and public investment decisions are taken, different forms of organization and engagement may have greater impact. Generally speaking, legislation affecting the ability of smallholders to organize, and the existence of institutionalized platforms for engagement of their organizations with other stakeholders and with government, are important preconditions. Good governance is also essential to ensure that policy decisions are taken in an accountable manner, and that their implementation, monitoring, and assessment of impact is transparent.

52. **The public sector as catalyst/partner in smallholder-sensitive corporate investment.** Experience with promoting win-win business arrangements in agricultural value chains shows the importance of intermediaries in bringing together smallholders and corporate investors. Intermediaries may be civil society organizations, specialized technical service providers, donors, but also government actors. According to the findings of the *Regoverning Markets* initiative, a facilitating and catalytic public sector is essential for the development of inclusive business models in modern agricultural markets, alongside a "receptive business sector" and organized farmers²⁵. This is not simply about a public sector that guarantees an enabling business environment or provides key public goods. It is about a public sector that can also intervene as a third party catalyst to kick-start inclusive business initiatives, with a commitment to phasing out its role over time.

53. There is a certain overlap between business arrangements and initiatives in which the public sector plays a catalytic role, and public-private investment in agriculture. However, public-private investment initiatives also have some specificities. For instance, public-private investment can cover areas in which public investment are needed (e.g. concerning infrastructure), but where the public sector lacks the financial, technical, or human capacity to undertake the investment on its own, or to ensure their maintenance after assets are developed (again, as in the case of infrastructure). Public-private partnerships are also particularly appropriate where there is need to harness the capacity of the private sector to generate capital to provide a mix of public and private goods. Today, public-private initiatives to ensure smallholder-sensitive investment are

²⁵ Vorley, B. and F. Proctor, Eds. (2008). *Inclusive Business in Agrifood Markets: Evidence and Action. A report based on proceedings of an international conference held in Beijing, March 5-6, 2008*. London: IIED

particularly needed in agricultural R&D and innovation for increased productivity, environmental conservation, and climate change mitigation. They are also needed in the development of financial products to address new risks in agriculture.

54. Public-private investment modalities, notably with the involvement of civil society, are often particularly appropriate to drive investment on a sufficient scale to affect the market and institutional environment for agriculture. Some promising initiatives in this regard have been undertaken such as the New Vision for Agriculture led by the World Economic Forum.²⁶ Such initiatives show that there are complementary roles for public and private actors to play in supporting agriculture to enable large scale impact towards food security and nutrition as well as other goals. The critical obstacle often appears to be the absence of a catalyst and of a common plan providing shared incentives and reducing everybody's risks. Understanding how similar initiatives can facilitate effective smallholder investment also points to an important policy agenda.

III. POLICY IMPLICATIONS

55. The above analysis has a number of key policy implications:
1. The importance of stepping up support to smallholder agriculture in public investment, services, and policies affecting agriculture and food value chains in developing countries
 2. The need to ensure that decision-making processes about policies and public investment allow for recognition of the role and interests of smallholders as investors
 3. The need to build up the evidence base on determinants and constraints to smallholder investment in agriculture
 4. The need to improve the evidence base for policy concerning determinants and constraints to smallholder-sensitive corporate investment in agriculture and in related markets (notably agri-food and biofuel markets)
 5. The need to promote evidence-based policy development on how to foster investment in agriculture that are conducive to meeting the multiple goals of increased agricultural production, environmental conservation and resilience, and enhanced nutrition.

²⁶ World Economic Forum. *Realizing a new vision for agriculture. A roadmap for stakeholders*. Geneva, 2010.