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of the United Nations

BACKGROUND PAPER

***Fourth private sector partnerships dialogue:
Inclusive finance and investment models in agriculture***

Rome, 14 October 2015

Prepared by the Agribusiness and Finance Group of the AGS Division

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Acronyms

AfDB	African Development Bank
ASMEs	Agricultural Small and Medium-Sized Enterprises
CFS	Committee on World Food Security
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
LMIC	Low-and-Middle-Income Countries
ODA	Official Development Assistance
PE	Private Equity
SMEs	Small and Medium-Sized Enterprises
TA	Technical Assistance
TAF	Technical Assistance Facility
UNIDO	United Nations Industrial Development Organization
UNCTAD	United Nations Conference on Trade and Development
VCF	Value-Chain Financing

Executive summary

This document was prepared in order to act as a background paper for the Fourth FAO private sector partnerships dialogue on *“Inclusive Finance and Investment Models in Agriculture”*, to be held at FAO Headquarters on the 14th of October 2015.

The goal of this event is to frame a dialogue between different categories of actors involved in agricultural finance and investment, both public and private, in order to identify modalities of collaboration which can overcome present-day challenges to agricultural investment in the developing world. The intention is to seek innovative solutions which can achieve greater developmental impact, improve financial governance frameworks, and provide financial services which can effectively fulfil the needs of rural households dependent on agriculture, as well as the small and medium agro-enterprises they participate in. The main topics which shall be broached during the meeting are the following:

- 1) The need for collaboration between different categories of actors to overcome the present-day scenario of suboptimal investment in developing world agriculture.
- 2) The lack of involvement of the formal financial sector in lending to agriculture, especially in rural contexts.
- 3) The potential and limitations of financial tools provided by non-specialized value chain actors in developing world agriculture to overcome this financial gap.
- 4) The use of innovative financial tools developed using a value chain financing approach, to bridge the gap.

The paper is divided in two parts. The first part, titled *“Unlocking private investments in agriculture: a case for public-private dialogue”*, analyses the present-day condition of agricultural investment in developing countries, with a focus on the consequences of the lack of collaboration between public and private investors. It begins by compiling available trends related to agricultural investment in the developing world, together with an assessment of the main sources for investment in the sector. It highlights the underinvestment trends that have historically affected the agricultural sector in developing countries; it also underlines how the increasing global demand for food, compounded by recent global macroeconomic events, has been generating renewed interest in agricultural investments from both the public and private

sector. The paper then illustrates how the lack of coordination and collaboration between different categories of actors (public and private) involved in developing world agriculture is the cause for a sub-optimal scenario of missed investment opportunities. Lastly, it provides examples of the benefits and incentives generated by recent innovative partnerships and collaborations between various public and private actors.

The second part, titled *“Challenges to and opportunities for achieving more inclusive rural and agricultural financial systems”* focuses on the core challenges faced by investors in developing world agriculture, including the lack of involvement from formal financial institutions towards lending to rural smallholders, which is a major contributing factor to the underinvestment scenario. After analysing the causes behind the rural financing gap, the paper highlights how agents within agricultural value chains (processors, traders, wholesalers...) that do not form part of the formal financial sector have filled this provision gap, by developing financial services for rural smallholders which, although very beneficial, have important limitations in terms of variety, flexibility and cost. Lastly, the paper provides examples of innovative approaches developed by pioneering agents to improve the current state of rural lending, in both the financial and agribusiness sectors. These innovative solutions adopt a value-chain financing approach to develop new financial instruments that can reach a sizeable segment of the rural population which is still underserved or excluded from the financial system.

At the end of this document (Annex 1), it is possible to find the key focus questions which were developed to act as a driver for the debate taking place during the 4th FAO private sector partnerships dialogue.

Acknowledgements

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Section 1 - Unlocking private investments in agriculture: a case for public-private dialogue

1.1 Recent trends in agricultural sector investment

Agriculture plays a vital role for economic growth and sustainable development. The evidence suggests that agriculture gross domestic product (GDP) growth in developing countries is on average 2.9 times more effective in reducing poverty relative to non-agriculture GDP growth (Bravo-Ortega and Lederman, 2005; Christiansen *et al.* 2011). According to the World Bank (2008), the agricultural sector in developing countries accounts on average for 29% of the GDP and for 65% of the labour force. The acknowledgement of this evidence has raised the interest from the public sector in fostering growth in agricultural investment, especially in lower-income developing countries.

From a private sector perspective, agricultural investment in developing countries has been historically considered risky and unpredictable, due to a combination of inherent factors which will be analysed further throughout this paper. With that being said, over the past decades agricultural investment has been the objective of increasing interest from domestic and foreign private actors, as a result of a variety of trends in developing countries: increased food demand due to population growth, a longer life expectancy, growing urbanization rates and changing diets due to greater purchasing power, increasing bio-fuel consumption. All these elements have driven up food prices and subsequently increased attractiveness of investments in agriculture.

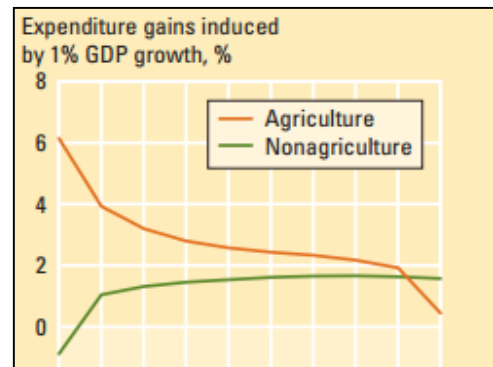


Figure 1. Source: Ligon and Sadoulet (2007). The figure shows how agricultural income growth has a particularly beneficial effect on expenditure groups for the poorest households, especially when compared to non-agricultural income growth.

Figure 2, which shows the **growth of world total demand and supply of grains and oils seeds** (in trillions of MT) in the past two decades, exemplifies the rise in global demand for food and bio-fuel, and the subsequent response from the agribusiness world in providing supply. The same positive trend can be witnessed across different geographical areas (Asia, Africa, Latina America), and for different commodities markets (fruits and vegetables, meat, etc.). Analysing this market is useful to highlight the existence of a reserve supply stock exceeding the demand, which can aid in adapting to possible unexpected fluctuations in the production process.

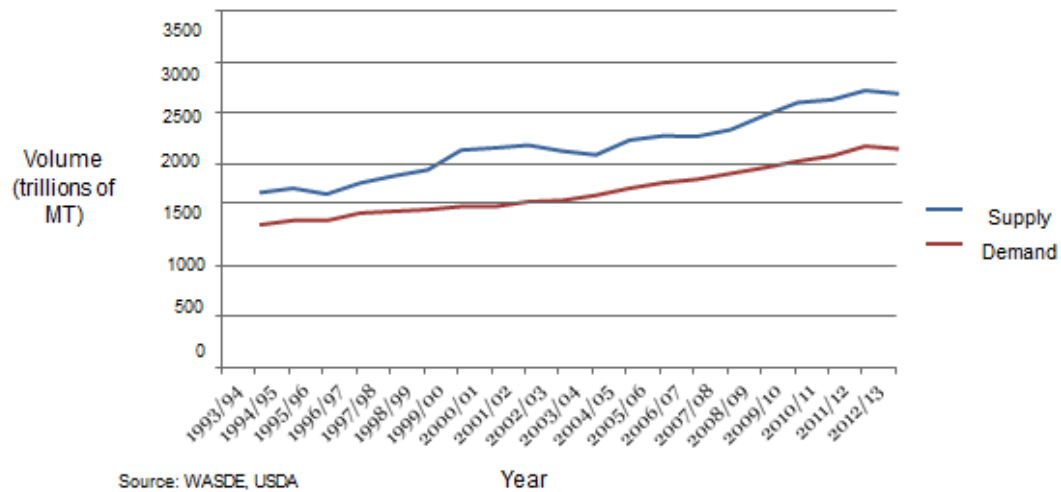


Figure 2: Growth in total world demand and supply of grains and oils. *Source:* WASDE, USA

There are other trends which evidence growing dynamism in the agricultural sector, such as increasing average productivity of different commodities (mainly due to improvements in total factor productivity), and rising agricultural capital stock due to increasing long-term investment (FAO, 2012; Fuglie, 2012).

Figure 3 below is a collection of graphs which highlight the rise in **the total export value of different commodities (in millions of USD)**, in different areas of the world. There is a common upward trend in total export value in the analyzed areas, with some high-value commodities gaining value at a faster rate than others (e.g. fruits and vegetables), due to changing patterns in consumers' diets. Overall, the continuing increase in agricultural demand, coupled with the rising dynamism in the agricultural sector and the need to find alternative investment opportunities, **has motivated the private sector (especially domestic) to exploit a rising number of agribusiness investment opportunities.**

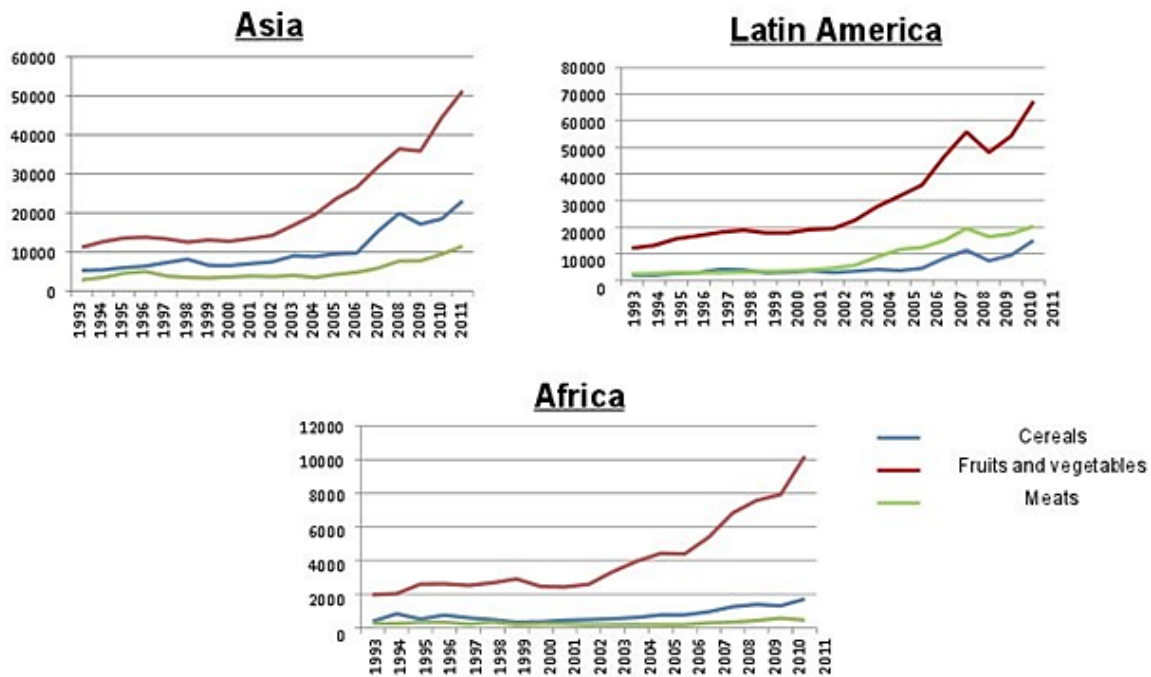


Figure 3: Growth in total export value of different commodities. *Source:* FAOSTAT

The two events that had the deepest impact on the agricultural sector in the last decade, the 2007-2008 world food price crisis and the global financial crisis, had different effects on agricultural investment trends, both public and private. The food price spikes in 2008 (and 2011/2012) and long-term growth expectations in the agricultural sector drew more private investors to the sector, with the promise of a high-return potential. From the public sector side, increased prices in agriculture and food security concerns brought developmental agencies and governments to increase their commitment to foster agricultural development. Meanwhile the diffused instability that affected the financial markets made investors more wary in their overall investment approach, leading on one side to an overall slowdown in investments, on the other to increased interest in developing world agribusiness as a reliable alternative asset class to traditional investment (Miller *et al.*, 2015).

Another notable trend to highlight is the rising interest from private equity (PE) and venture capital firms in the agribusiness sector. According to a recent industry research (IFC *et al.*, 2015), 40 agribusiness-dedicated PE funds have raised approximately US\$6 billion in emerging markets since 2008. During the same period, 283 agribusiness deals have been executed by 153 PE firms (both agribusiness-dedicated and sector-neutral funds) and in 2014,

US\$2.6 billion worth of PE investment was conducted in the sector. 73% of these deals between 2008 and 2014 have taken place in emerging markets in Sub-Saharan Africa and Asia, while the rest was concentrated in Latin America, North Africa, the Middle East, and others. Private equity firms (both generalists and agriculture specialists) can play a strong role in fostering agricultural value chain development in all of its segments, although (as it will be further shown in section 1.3) their investments in general have mainly been focused on commodity processing and other downstream activities (IFC *et al.*, 2015).

The rising interest in agricultural investment from the public and private sector contrasts with **the very limited role formal financial actors¹ have played so far in providing financial services to agricultural actors**, especially rural smallholders and agricultural small and medium enterprises (ASMEs). Considering the agricultural sector's importance in developing countries' economy, the relative low exposure of the formal financial sector to agriculture contributes to the notion that there are still many feasible investment opportunities which are not being seized by actors within agricultural value chains, due to the lack of appropriate funding. This translates into an **aggregate underinvestment** scenario, which affects most agricultural systems in developing countries. There are multiple reasons behind this scenario, which will be analysed more in depth in section 2 of this research.

1.2 The prevalence of private domestic investment in agriculture

Figure 4 at the end of this section shows a comparative dataset analysis of the **sources of agricultural investment in selected low-and-middle income countries (LMIC)**.² It is evident from the data that **domestic private sector investment** has the lion's share in overall investment in agriculture. It exceeds by four times the annual flows to agriculture from governments (the second largest category) in developing countries. The remaining categories, official development assistance to agriculture (ODA), foreign direct investment (FDI), and

¹Note: For the purpose of this work, the definition adopted for formal financial institutions is the same one used in the FINDEX database. This means banks, credit unions, microfinance cooperatives, or any institution supervised by governments focused on providing financial services.

²Note: it has to be highlighted that systematic and comprehensive data on agricultural investment are very limited, and although datasets are useful to give a comprehensive overview of the state of agricultural investment, they do not provide a complete picture. The issue is compounded by the difficulty in defining clearly which data should be included in each individual category (FAO, 2012).

public spending on agricultural R&D, are all sizably smaller than either private domestic investment or public government spending. It has to be underlined how foreign direct investment, which plays a minor role as an investment source in the overall scenario, is usually associated to the largest *individual* investments, and as such the most evident and visible. This contrasts with the situation in the private domestic sector, which is normally composed by a fragmented constellation of medium, small and micro investments.

Local domestic actors tend to be those best able at identifying and seizing investment opportunities in the agricultural sector, since they possess critical information advantages about the complexities of agricultural markets and the various dynamics between value chain actors, deriving from their unique perspective from within the field.³ However, the composition of this group of domestic investors tends to be highly heterogeneous, consisting of smallholder farmers, as well as medium and large farmers, who are often neither well-organized nor able to effectively lobby domestic policymakers about their needs.

From a public sector perspective, the evidence of this data implies that in addition to considering public investment in terms of dollar amounts, domestic governments and development organizations should focus on creating enabling environments for private investment, channeling private capital in socially and environmentally sustainable endeavors, and aim at removing private sector constraints to investment (FAO, 2012; Lowder, Carisma and Skoet, 2012).

³ Note: *an important point to underline is the strong tendency among these domestic investors to use their own equity or savings to exploit these identified investment opportunities. This implies a very limited ability to draw on external financing sources.*

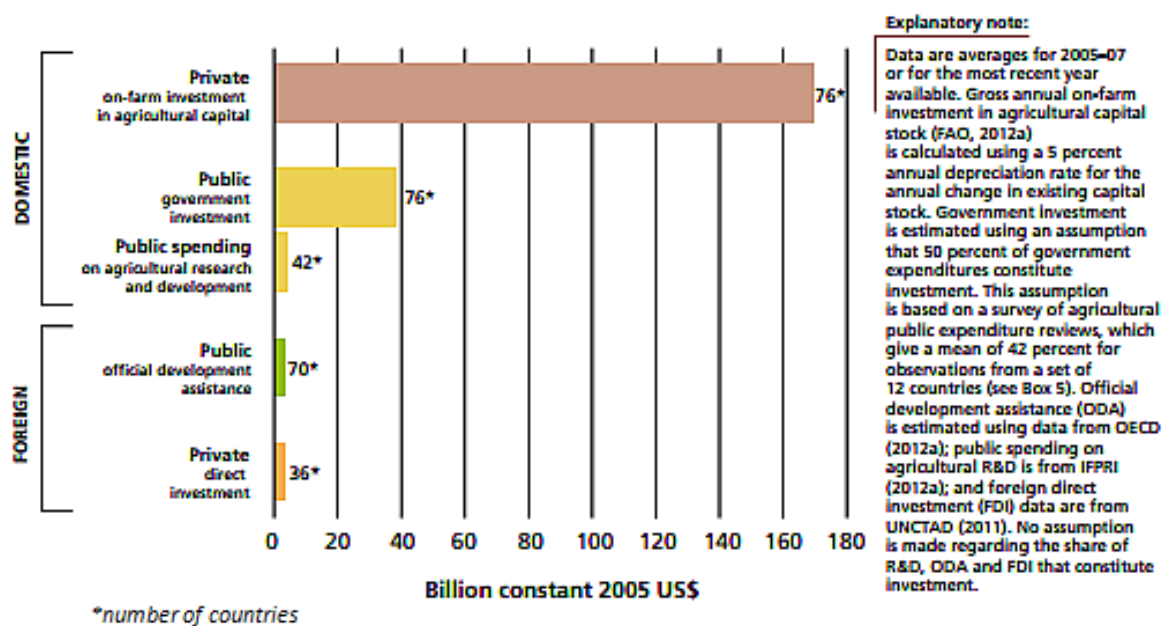


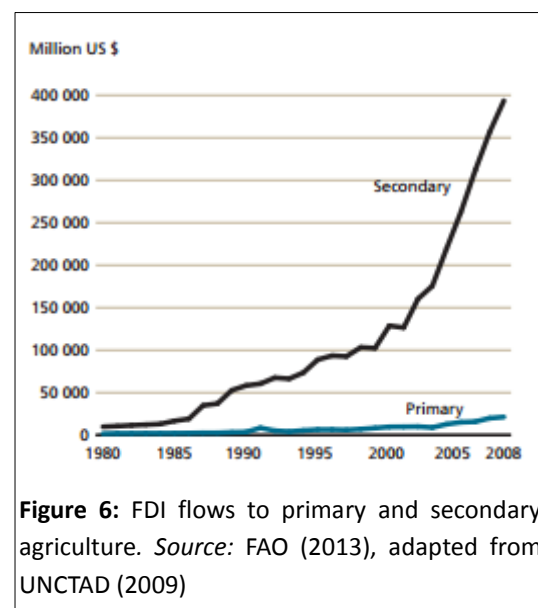
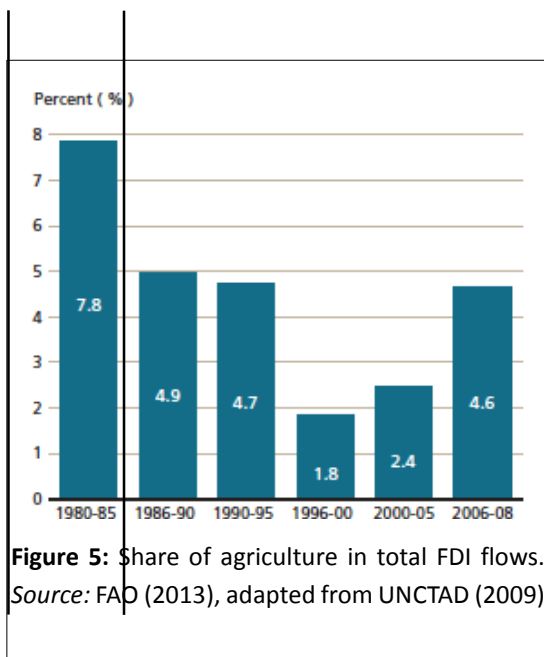
Figure 4: Sources of agricultural investment in selected LMIC. *Source:* FAO (2012); adapted from Lowder, Carisma and Skoet (2012)

1.3 Foreign direct investment in agriculture and the Principles for Responsible Investment

After facing a notable downward trend in the 90s, Foreign Direct Investment (FDI) in the agricultural sector of developing countries has witnessed a surge in the past fifteen years, following the sharp rise in commodity prices in 2007/2008 and the prospect of an increasing demand for finite resources in the future, leading countries that are heavily dependent on food imports to invest in other countries where land and other natural resources abound (FAO, 2013).

Figures 5 and 6 highlight some relevant trends associated to FDI in agriculture. As can be evinced from Figure 5, although FDI in agriculture has witnessed a rise in the past years, it still represents a very small portion of total FDI flows (and in general of total resource flows to agriculture in LMICs). Still, FDI in agriculture represents an important factor to be accounted for in a number of individual developing countries, and its implications in terms of opportunities and challenges (especially those related to direct control of agricultural land) merit further analysis. Figure 6 shows the distribution of FDI flows between primary and secondary

agriculture (in millions of USD).⁴ It is evident that most agricultural FDI goes into downstream activities, while a small percentage (<10%) goes into primary production. This outcome highlights not only the perception of increased investment opportunities in downstream segments, it also suggests the challenges to investing in primary agriculture, where it is likely that investment opportunities are being missed given the close linkages with other value chain segments. **The involvement of FDI in primary agriculture is still extremely limited:** a main reason for this lies in the negative perception associated to investment in agricultural production, deriving from factors such as unpredictable cash flows, high volatility due to climatic and environmental events, unstructured markets etc. As a result, investors prefer to focus their investments in other value chain segments where it is easier to correct inefficiencies in order to create value, and where cash flows are more predictable.



Unlike traditional forms of investment in the agricultural sector, which sought to gain better access to markets or cheaper labour, the recent investment strategy of FDI in agriculture has been aiming at **directly acquiring resources** (mainly land and water) in developing countries. This is done in order to gain control of production right at the source and export the finished product back in the home country (with a focus on basic food production), in order to avoid

⁴ Note: for the purpose of this work, primary agriculture refers to activities linked to the production phase (e.g. seeding, harvesting etc.), while secondary agriculture refers to post-production value-adding processes (i.e. “last-mile activities” such as processing, marketing, distribution etc.).

remaining too dependent on the volatility of international markets. The issue of **land acquisition** is one of the most controversial subjects associated to FDI in agriculture, especially considering the fact that much of the evidence collected to date shows that, at a local economic level, the disadvantages of this practice tend to outweigh the benefits. While there are a few examples of positive impact at a local economic level (e.g. generation of employment, technology adoption and spillover), negative social and environmental consequences abound: displacement of local smallholders; insufficient compensation for land loss; negative impacts on rural livelihoods; degradation of natural resources due to intense use, etc. From a broader perspective, the controversy of land acquisitions stems from the fact that this practice transcends the mere economic dimension, to affect matters of culture, politics, environment, and ethics (FAO, 2013).

The issue of land acquisition through FDI, and more in general the broader necessity of ensuring a regulatory framework for responsible investments in the agricultural sector, brought the Committee on World Food Security (CFS)⁵ to develop the **Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI)**, which were approved in October 2014 by the 41st Session of the Committee on World Food Security. These principles address how responsible and sustainable investment in agriculture and food systems should be carried out in order to enhance food security and nutrition.⁶ The principles are voluntary and non-binding, and were conceived to be applicable to all sectors and segments of agricultural and food systems. Their development represents the first time that UN organizations, the private sector, the academia and civil society organizations have agreed together on a shared framework for responsible investment in this area (CFS, 2014).

5 Note: *The Committee on World Food Security (CFS) was set up in 1974 as an intergovernmental body to serve as a forum for review and follow up of food security policies. In 2009 the Committee went through a reform process to ensure that the voices of other stakeholders were heard in the global debate on food security and nutrition. The vision of the reformed CFS is to be the most inclusive international and intergovernmental platform for all stakeholders to work together in a coordinated way to ensure food security and nutrition for all (retrieved from <http://www.fao.org/cfs/cfs-home/en/>).*

6 Note: *The Principles are: 1) Contribute to food security and nutrition; 2) Contribute to sustainable and inclusive economic development; 3) Foster gender equality and women's empowerment; 4) Engage and empower youth; 5) Respect tenures of land, fisheries, forest water; 6) Conserve natural resources and contribute to climate change adaptation and mitigation; 7) Respect for cultural heritage and traditional knowledge; 8) Promote safe and healthy productive systems; 9) Incorporate inclusive, and accessible governance structures, processes, and grievance mechanisms; 10) Review impacts and ensure accountability and transparency (CFS, 2014).*

1.4 The need for public-private partnerships

Although investment in developing world agriculture has experienced a resurgence in recent years, there is evidence nonetheless of great potential in the sector, to be gained by closer coordination and interaction among different categories of actors: **the domestic and foreign agribusiness sector, the formal financial sector, and the public sector**. The lack of collaboration and information exchange among these actors generates **missed investment opportunities** that have the potential to generate increased benefits to ASMEs and smallholder families. Each of these categories of actors holds different competitive advantages when it comes to investing in agriculture; at the same time, they all need each other to compensate their inherent weaknesses in order to recognize and exploit the different investment opportunities that the agricultural sector offers. No single investor can cope with all the different pre-investment requirements in the sector, or benefit by itself from the public goods made available by governments and public agencies, since these most often go beyond his individual capacity. From a more general perspective, **the lack of an enabling environment** plays an essential role in limiting collaboration between public and private actors, heightening the perception of risk associated to investing in the sector and discouraging investment.

The following table reviews common strengths and weaknesses associated to the different categories of actors involved in investment in the agricultural sector:

Category	Strengths	Weaknesses
Domestic agribusiness sector	<ul style="list-style-type: none"> - Technical expertise in the agribusiness domain - High access to market information due to presence in the field - Knowledge of the needs and demands of the actors and service providers within the value-chain, due to their perspective from within the value chain 	<ul style="list-style-type: none"> - Lack of depth of knowledge in finance and different financial instruments - Lack of flexibility in providing financial products due to capital constraints and high opportunity costs in funds - Lower financial resources which can limit investment capacity

Category	Strengths	Weaknesses
Foreign Agribusiness Sector	<ul style="list-style-type: none"> - Higher availability of capital and technology compared to domestic actors - Ability to introduce international best practices 	<ul style="list-style-type: none"> - Lack of ground-level information about local markets and dynamics among value chain actors
Formal Financial Institutions	<ul style="list-style-type: none"> - Longer-term financing and lower cost of capital - Ability to provide a wide set of financial services (e.g. loans, savings, transfers, insurance), tailored on the specific needs of rural agricultural actors - Greater flexibility of service terms and conditions 	<ul style="list-style-type: none"> - Lack of ground-level information about local markets and dynamics among value chain actors - Lack of technical knowledge related to agricultural processes - Lack of risk mitigation instruments when financing ASMEs and smallholders
Public sector	<ul style="list-style-type: none"> - Ability to provide public goods required to foster private investments - Usually greater knowledge on needs and constraints of smallholders - Ability to create an enabling environment for investment - Ability to pioneer risky innovations at the start-up stage, shouldering part of the initial associated risk 	<ul style="list-style-type: none"> - Risk of myopic policymaking which can distort the market and discourage investment, e.g. wrong public subsidies - Lack of required capital needed for large-scale investment, needs to channel private resources

An increasing number of **innovative collaboration models** have emerged in recent years, which aim at overcoming the suboptimal scenario of missed investment opportunities by fostering greater coordination between private and public actors. Through public-private partnerships, the private sector can draw on the expertise and public goods provided by public institutions in order to increase the number and the quality of services which can be offered to rural populations. The public sector, meanwhile, can greatly increase the developmental

impact of its interventions, by tailoring them according to the knowledge -acquired from private actors - on market needs and requirements (e.g. variety, quality, quantity required by the markets).

1.5 The use of technical assistance facilities to enhance public-private collaboration in investment

An example of a collaborative concept in the agricultural domain, aiming at fostering more effective public-private coordination in investment, is the creation of **technical assistance facilities (TAFs)** which usually act as a support to investment funds. These grant-funded facilities finance and manage various Technical Assistance (TA) services to enhance both the financial return and the development impact of investments. The existing TAFs mainly target the investee firms of investment funds and develop their capacities, giving them adequate preparation to be able to accept external investment. Furthermore, some TAFs have broader service scopes, supporting other value chain actors in order to make investment more inclusive of local producers and SMEs. From the investors' point of view, TAFs can mitigate the risks related to the investee companies and other value chain actors. The TAF is also a development tool used to directly influence the investment, in order to make it more inclusive and sustainable.

FAO, together with other partners, has developed a unique TAF concept that places additional emphasis on value chain coordination and capacity development of public policy makers. This TAF will target the growing agribusiness sector in East Africa by addressing TA requirements from private investors in their investment projects, with the inclusion of the surrounding value chains. The TA projects are also designed and implemented to influence public policies and investment projects which are expected to shape a more conducive enabling environment. More concretely, this TAF will provide TA services with the aim of:

- Improving the capacity of different value chain actors, particularly agro-processing SMEs and producer groups, in governance, management, technology and marketing along the value chain;

- Facilitating coordination along the value chain, including the engagement of national financial institutions and business development services (BDS) providers;
- Empowering government agencies to design and implement public investment projects, facilitating collaboration between public and private investors while developing enabling policies.

This is just one example, along with many similar innovations in the field, of an initiative that proactively facilitates public and private sector coordination in agricultural investment. The insights acquired from these initiatives should be properly compiled and analysed, with the aim of developing principles and lessons which will help to unlock investment opportunities in the agricultural sector, on a larger scale.

Section 2 – Challenges to and opportunities for achieving more inclusive rural and agricultural financial systems

2.1 Challenges to agricultural investment: the rural financing gap and the under-investment trend

Currently, there is a general consensus among experts that progress to increase access to financial services has been neither adequate nor homogenous within the different economic sectors in rural contexts. Although important innovations to tailor the delivery of financial services to the needs of the rural commercial sector have taken place, formal financial institutions are still considerably limited in their delivery of financial services to the agribusiness sector and agriculturally-dependent households, an issue which results in a **rural financing gap** limiting agricultural investments. This continues to significantly affect smallholders, their organizations, and those small and medium agro-enterprises constituting the so-called **'missing middle'** in financial markets, which lack access to finance.

As discussed in the previous section, this phenomenon is due in part to the unique dynamics within agricultural value chains that imply greater and more complex coordination among supply chain segments and service providers, necessary to manage effectively a wide range of risks. This in turn has caused a trend of under-investment in agriculture in developing countries, which means that existing technically and economically feasible investment opportunities are being forgone, mainly by micro, small and medium agricultural ventures. This trend in the sector persists because 1) agribusinesses are dependent on biological processes and climatic conditions that are difficult to mitigate and insure against; 2) the sector faces fragmented input and service markets that can lead to failures in coordination among value chain agents, over which investors have little control; 3) it has bulky, seasonal, and long-term financing requirements that financial institutions find hard to satisfy; 4) there are weak property rights for factors of production such as land and water; and 5) agriculture has a long history of political interventions that crowd-out the private sector (Baland J. and Kotwal, A. 1998, Hollinger, 2004, IFC, 2011).

Because of the challenges in financing and investing in agriculture, in many developing countries the increased demand for agricultural financial services, motivated by the growth in agricultural markets, has not generally been met by formal financial institutions. The underserved agricultural financial market has been partially filled by **non-financial actors within the value chain** (e.g. wholesalers, processors, producer organizations). These actors can respond to the financing gap due to their unique informational advantage, resulting from their direct business engagement within the value chain. The downside, nevertheless, is that the lack of financial specialization of these actors has resulted in financial services which are **expensive, neither diverse or flexible, and available only to a small part of the rural population linked to the respective value chains.**⁷

The dominance of non-financial actors in growing rural and agricultural financial markets – together with the well-documented limitations of the financial services they provide- suggests that there are likely further agribusiness investment opportunities to be seized, especially by rural SMEs and smallholder families with inadequate access to finance. This has been recognized by **pioneering specialized service providers** that have begun to offer financial and business development services to SMEs and poorer rural households currently underserved or excluded. Through this provision of coordinated financial and non-financial services, formal financial institutions and their partners have begun to properly assess advantageous returns on investment in smallholder agriculture, which makes the delivery of their services commercially profitable and sustainable.

2.2 Challenges in providing financial services to agriculture

Increasing the provision of financial services to the agricultural sector is a challenging process. Despite the changes and innovations of recent years, agriculture is still perceived by commercial banks as a sector with high operational and transaction costs, lack of information for proper credit assessment, covariant risks (e.g. climate, pests), and low returns on investment. Traditionally, the banking sector has had little motivation to bear the expenses associated to developing a proper comprehension of the risks related to SMEs agriculture, and to extend its services to a high number of widely dispersed enterprises in rural contexts, in need of small loans. From the public sector side, agricultural lending programmes in developing countries have commonly given sub-par results, despite -and sometimes because

⁷Note: the informal financial market in developing countries will be more thoroughly analysed in section 2.3

of- high governmental subsidies. Agricultural development banks have been slow to innovate, often partly due to the governmental directives given to them (Miller and Jones, 2010; Oxfam GB, 2009).

Furthermore, despite some advances made by commercial and development banks in servicing the agricultural sector in few developing countries (see FOMIN, 2015), there is still a dominating trend from the banking system to offer financial products which are **unsuitable for the needs of agribusinesses**, especially smallholder families and rural SMEs. These actors require a blend of diverse and suitable complementary financial services in order to manage the seasonal business cycles necessary to stabilize their income and allocate in an optimal manner their capital, whether self-mobilized or borrowed (Oxfam GB, 2009). More familiarity with client needs and inherent risks would be needed for the banking system to develop products and processes that provide adequate agricultural financial services to a broader range of rural clients, in a sustainable manner.

From the smallholders' side, the most common constraints affecting access to finance are usually poor credit history, low financial literacy, and limited collateral. This last element stems from the fact that formal financial services providers, given the relative small number of instruments they possess to mitigate lending risk in agriculture, tend to rely heavily on real collateral. Therefore smallholder farmers in rural contexts usually lack the assets required by banks for longer-term loans. This issue is compounded by land tenure restrictions and other policies that were introduced to preserve the livelihood assets of the community, but at the same time limit their availability of acceptable collateral. Moreover, even if farmers possess sufficient land to collateralize low-interest loans, they may refuse them in favor of high-interest loans which do not ask for their land as guarantee, given the land's attributed value as main source of sustenance (Wenner 2010). By improving **the ability of formal lenders to assess the cash-flow generation potential in agricultural ventures**, it would be possible to bring these actors to rely less on collateral as a risk mitigation tool, thus contributing to increase access to finance for smallholders.

Although it is not easy to gauge the extent of the financing gap in developing world agriculture, it is possible to highlight trends which give an idea of the relative low levels of formal lending directed at the sector. Figure 7 below analyses data from a sample of 19 African countries in the year 2011. It compares agricultural credit as a share of total credit against agricultural GDP

as a share of total GDP in a country. As can be evinced from the data, notwithstanding the high percentage of GDP deriving from agricultural production in most countries, agricultural credit still represents a very small part of the national credit portfolio, with some notable exceptions (e.g. Zambia). Analysis of global trends in agricultural credit portfolios suggests that, as the financial system develops along with the country's agricultural sector, the proportion of agricultural credit usually tends to be as high, or higher, than the proportion of the agricultural sector in the overall economy (FAO, 2015). This implies that the banking systems implied by this figure are not able to service the agricultural sector in a way that is proportional to the sector's capacity of generating wealth and employment. Similar trends as the one evidenced below can be appreciated in sample countries in Asia and Latin America (Hernandez, 2015).

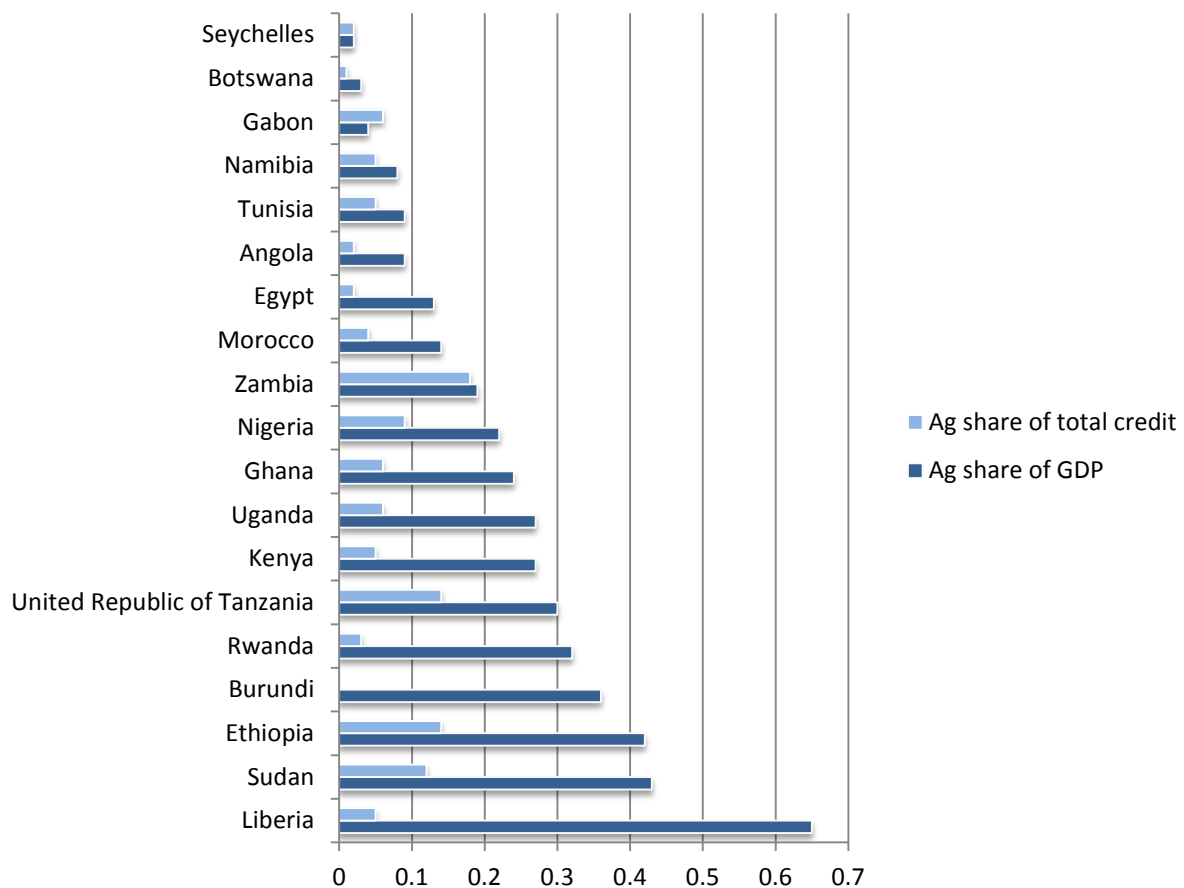


Figure 7: Agricultural credit as a share of total credit versus agricultural GDP as a share of total GDP, in selected African countries (2011). *Source:* FAO and WDI, World Bank

2.3 The ‘missing middle’ and the informal financial market

The “**missing middle**” category in agriculture is represented by small-scale enterprises, such as agricultural cooperatives and SME agribusinesses, whose financial needs are too large to be fulfilled by microfinance institutions, and too small to be considered by commercial banks and private equity funds. Figure 8 illustrates this concept, by showing the range of capital needs of the agricultural sector covered by different financial institutions, spanning from urban to rural contexts. As can be evinced from the figure, the ‘**missing middle**’ category lies within the finance gap for capital needs which range between USD 10,000 and USD 1 million, a value range which is illustrative and not always agreed on in dedicated literature.

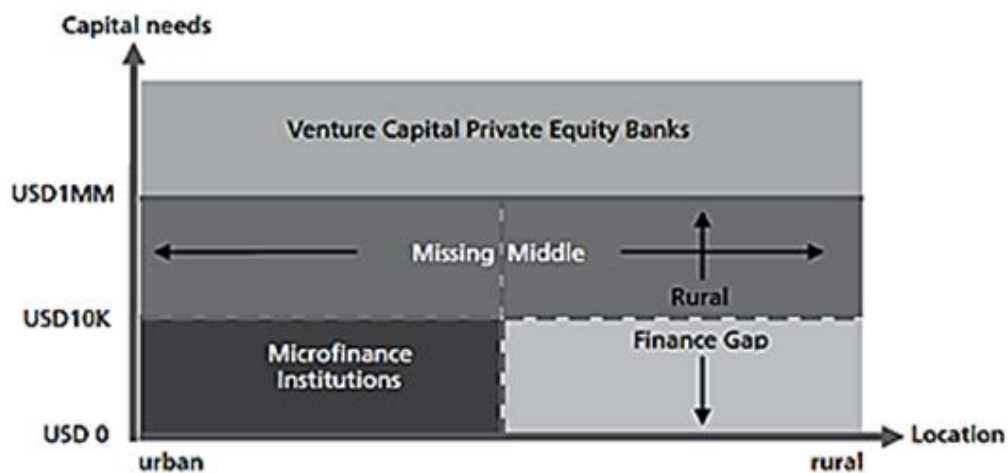


Figure 8. The capital needs of the “missing middle”. Source: Milder, 2008

Due to the limited involvement of formal financial institutions, the capital needs of the missing middle are primarily serviced by non-financial actors within the value chain (e.g. input providers, wholesalers, processors, traders, warehouse operators) who are not specialized in offering financial services, but provide them in order to ensure the smooth functioning of the processes within the value chain. In addition, the rural population that is excluded or underserved by formal financial systems is also serviced by agents such as money lenders, family, friends, and **community-based financial organizations** (e.g. savings and credit associations and clubs).

This heterogeneous group of financial service providers often represents the only collection of agents capable of reaching poorer rural families -including smallholder farmers and the rural SMEs they participate in- which are disaggregated and geographically dispersed.

It is possible to get an idea of the extent of the informal financial market in agriculture through Figure 9, which shows a comparison between the percentage of the total rural population in Sub-Saharan Africa that uses savings and credit services provided by any source, against the percentage that is only serviced by formal financial institutions.

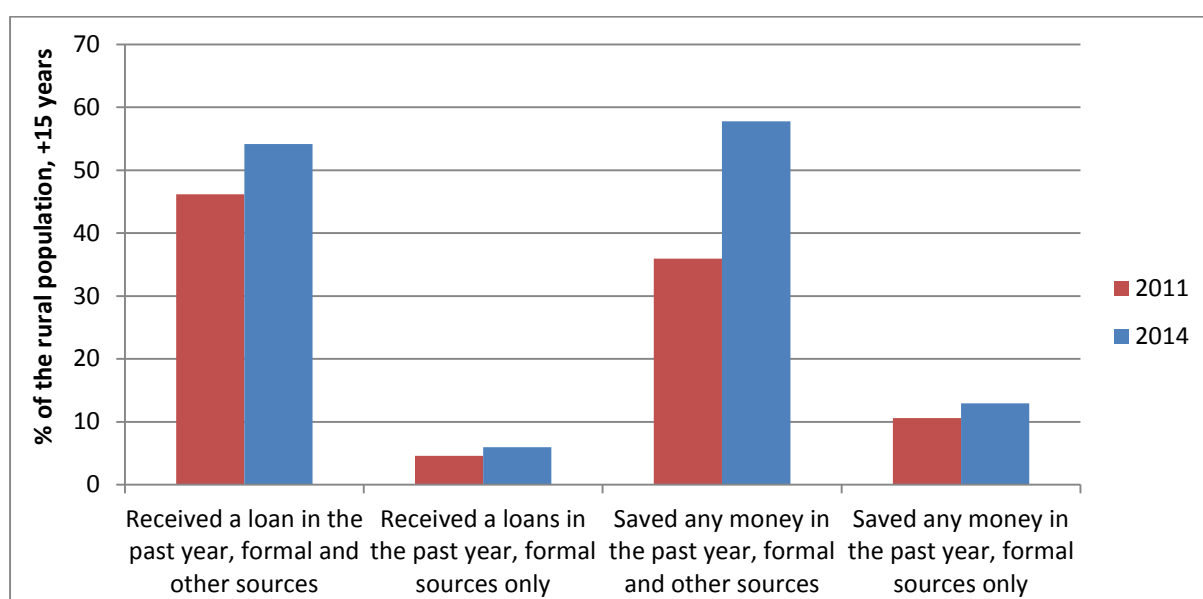


Figure 9: The formal and informal credit and savings market in Sub-Saharan Africa (2011-2014 comparison). *Source:* Findex 2011 & 2014

Considering the low percentages of loans and savings ascribable to formal financial institutions, it is clear from the data that the greatest part of the savings and loan services are delivered within a market whose nature is informal. Furthermore, although there has been a slight improvement in formal financial lending between 2011 and 2014, the largest part of such increase derives from heightened activity of non-formal sources. Similar data can be found for Latin American countries, as well as Southeast Asia and EAP (East Asia and Pacific) countries (Hernandez, 2015).

Although until now the role of these non-specialized financial actors in rural contexts has proven fundamental to foster the increase of investment in the sector- and in providing an effective response to the rising demand for agricultural products- there are distinctive limitations to the services they offer, which tend to be inflexible, not overtly diverse (i.e. limited to a few forms of credit), and only available to a small percentage of the rural farming population linked to specific commodities or value chain actors (USAID, 2011; Milder, 2008).

2.4 The value chain financing approach:

a solution for formal financial institutions to fill the gap in traditional finance

In recent years, an increasing number of pioneering financial institutions have demonstrated that providing financial services to rural populations is both possible and profitable, when drawing on the informational advantage and specific expertise of value-chain actors and non-specialized financing agents. By adopting a **value-chain financing (VCF) approach**, it is possible to develop innovative financial solutions to bridge the gap between formal financial institutions and value chain actors, thus overcoming the challenges in servicing underserved or excluded segments of the clientele within the agricultural sector.

The VCF approach considers the collective set of actors and processes within the totality of the value chain in order to make financing decisions, instead of focusing on the single lender-borrower relation as conventional finance does. In other words, the approach adopts a systemic viewpoint that takes into view the **organic collective of the business relationships within the chain**, more than the creditworthiness of the single actors. Value chain financing can be divided between internal finance (the financial flows between the chain actors), and external finance (the flows from financial institutions into the chain), as well as a combination of both (Miller and Jones, 2010).

Value chain financing is a **structured and market-competitiveness approach** that is meant to complement - and not replace - conventional finance, by increasing access to funds and reducing risk for all parties involved. Conventional financing, being focused mainly on the individual lender-borrower relation, incorporates additional risk born out of the absence of a comprehensive view of the links within the value chain. The lack of an organic view generates additional uncertainty, which makes it harder to assess and mitigate the risks correlated to

lending. Uncertainty also leads to a higher perception of risk associated to the agricultural sector, discouraging conventional lending from the start.

More involvement of formal financial institutions in the VCF mechanism has been shown to expand financial options for agriculture and smallholder families, giving them a new array of more diverse, cheaper, and flexible financial products (Hernandez, 2015). In the next section, a number of financial innovations which have adopted a VCF approach will be briefly analysed.

2.5 Examples of enhanced financial products adopting a value chain financing approach

Warehouse receipt finance

Warehouse receipt finance is an example of an innovative approach that builds on the value chain financing methodology to provide post-harvest financing to smallholders. Through a warehouse receipt system farmers have the option after harvesting to store their crops in an independently controlled warehouse, pledging the crops to a bank or MFI in exchange for credit. The stored product that is used as guarantee for financing is backed by a receipt, which is redeemable for warehouse inventory of the same quality and value as what is written on the receipt itself. Without this system, farmers would normally have to sell their crop right after harvest, without benefitting from any price recovery. A warehouse receipt system therefore increases the negotiating power of farmers, who can decide to store their harvest in case that present prices do not satisfy their needs. The use of harvest as collateral benefits especially smaller traders, who typically do not possess adequate collateral as required for borrowing by conventional banks (IFC, 2011).

There are many benefits to this approach: management and mitigation of price risk; reduction of crop losses; increased flow of credit in supply chains; independent grading and quality certification of crops (performed by the warehouse operator when the commodity arrives); improved attention to crop quality given by farmers, due to the quality grading step. On the other side, the risk of fraud or collusion is particularly high, as well as storage risk and credit risk, especially if the legal environment of the hosting country is weak and does not allow for easy enforceability of the stored security.

Factoring and reverse factoring

Factoring. Through factoring a company sells its account receivables (A/R) at a discount to a third party (the factor, usually a bank or a factoring company), in exchange for immediate cash. As a consequence, there are three parties involved in a factoring transaction: **the seller** (e.g. input supplier or wholesaler), who while being owed money by the buyer of its goods, **the debtor**, sells its receivable invoices to a third party (**the factor**), to obtain an advance payment. An important feature of factoring is that the factor advances to the seller less than 100% of what the seller is owed (typically 70/80%), while at the same time claiming full ownership of the account receivable. Upon notification, the debtor can only legally liquidate its debt by paying the factor. Usually factoring is done on a 'recourse' basis, meaning that if the debtor does not pay despite the efforts of the factor, the factor will have recourse to claim payment from the seller.

Together with financing, the factor offers two other important services: the collection service of the accounts receivable, and the assessment of the creditworthiness of the debtor. The factoring company can be better placed for collection and it may have a better understanding of the condition of a seller's customer than the seller does itself; it can warn if the debtor's financial situation -and/or the respective value chain- is deteriorating and thus advise the seller accordingly. An additional advantage of a factoring company compared to bank financing is that the former can purchase receivables quickly, efficiently and with great flexibility, so as to meet customers' requirements (Miller and Jones, 2010).

Reverse Factoring. Reverse factoring is a financing tool alternative to factoring which aims at overcoming some of its limitations. In this example, the lender purchases accounts receivables only from specific high-quality buyers which possess enough information to be able to adequately assess. The factor needs to collect credit information and calculate the credit risk for selected buyers, which are often very large, transparent and internationally accredited firms. As in the case of normal factoring, the main advantage of reverse factoring is that the credit risk is equal to the default risk of the selected, high-quality customers, and not the riskier, lesser known small or medium agribusiness firms. This arrangement allows creditors in developing countries to factor 'without recourse' and provides low-risk financing to higher-risk suppliers (Miller and Jones, 2010).

Leasing

Leasing is an alternative financial mechanism for agriculture that benefits smallholders and companies with inadequate collateral and credit history. It is an agreement between a party that owns an asset (the lessor) who allows another party (the lessee) to use the asset temporarily in exchange of periodic payments. It allows the lessee to gain access to a variety of assets (usually farming equipment, vehicles, machinery etc.) which can increase his competitiveness in the market, while circumventing some of the typical constraints related to the registration and foreclosure of collateral. A notable difference with other VCF instruments is that leasing focuses on providing fixed assets, instead of working capital. Leasing is a particularly useful solution for starting companies which do not have a substantial credit history or adequate conventional collateral. Since the lessor remains the owner until all payments have been honoured, the asset itself acts as a form of collateral (IFC, 2011).

As noted by Miller and Jones (2010), the fact that the lessor always remains the owner of the physical asset leased implies that it is legally easier to reclaim it in the eventuality that the lessee defaults on his payments, since repossession does not require court procedures. From the lessee's perspective, although it falls on him to bear all maintenance cost related to the asset leased, he does not need to make a huge one-off initial purchase to acquire it. Much like warehouse receipt financing, the use of leasing is facilitated by the presence of enabling and favorable legal environments, which clearly detail rights and obligations of both parties involved in the deal.

Index-Based Insurance

Index-based insurance was developed to overcome some of the limitations typically faced by traditional insurance instruments in the agricultural sector (high transaction costs, lack of direct on-field information etc.). By adopting an index-based insurance system, the parties agree on an objectively measurable, independent indicator (the index), which has a high degree of correlation with regional farm yields. Examples of indexes include rainfall, seasonal temperature, livestock mortality, etc. Paybacks to farmers are triggered by deviations on the index. An application of this concept would be **weather index-based insurance**, which allows

companies or farmers to hedge the risk of weather-related losses. In a practical example, a weather station could be set up in order to measure a specific weather variable at a regional level (e.g. rainfall, seasonal temperature) over a set period of time: paybacks are triggered in the eventuality that the measured values fall below the agreed thresholds (IFC, 2011; Kang, 2007).

What are some of the advantages connected to this system? Firstly, since indemnities are paid solely based on the realized value of the underlying index, there is no need for direct on-field assessment of the actual yield losses. Secondly, unlike with traditional insurance contracts there is no need to classify individual policyholders according to their level of exposure. Thirdly, since no risk assessment is required at farm-level, index insurance policies can be sold by insurance companies which do not necessarily possess agricultural expertise. Finally, index-based insurance is not as susceptible as traditional insurance to issues of moral hazard and asymmetric information: it is assumed that neither the insurer nor the policy holder have more advantageous information on the underlying index which might be exploited by one of the two sides.

There are a number of disadvantages connected to the adoption of index-based insurance. A few of them include: a lack of data availability and quality to properly measure the index in many developing contexts (e.g. lack of real-time and historical weather data); averagely high requirements in terms of technical capacity and expertise for proper implementation; issues of replication and adaptability of the insurance product in different contexts. In particular, **basis risk** represents a key limitation to the adoption of index-based insurance: an insufficient degree of correlation between the yield losses incurred by the farmer and the index chosen to measure losses and payouts. This low degree of correlation could result in farmers incurring losses without receiving a payout, or farmers receiving insurance payouts while suffering no actual loss (Kang, 2007).

Commitment savings

By adopting commitment savings, farmers have to option to store their savings in special accounts which impede withdrawal until a specified set date. This approach, among other benefits, addresses self-control problems of farmers relative to early spending, allowing them

to withdraw money only during specific periods related to the harvesting process (e.g. the pre-planting period). Without such a restriction, farmers might be more inclined towards myopic spending, due to the greater value associated to money in the present than in the future. This issue is compounded by possible pressure from family or social circles, which might encourage early spending.

The usefulness of this tool lies in the fact that it provides a valid alternative to traditional savings accounts for rural farmers, while fostering responsible financial inclusion. A commitment savings account allows farmers to access funds when they need them the most for their farming activities, enabling them to manage their savings and cash flows in a more optimal way. It allows farmers to put aside excess income for later use, while typically providing them with a small rate of return (Lasse, Gine, Goldberg and Yang, 2010).

Repurchase agreements

In a repurchase (or repo) contract, the bank first purchases the goods directly from the producer, instead of accepting them as collateral for storing or shipping. It then stipulates a contract with the producer for resale of the goods within a set time period, at a price that reflects the cost of funds from the original time of sale to the resale. The commodities are stored and shipped by accredited collateral managers (responsible for quality and grading), who issue receipts with the agreed conditions for repurchase (CIGAP and IFAD, 2006). By following this system the bank obtains greater legal protection than how it would compare to simply accepting the goods as collateral. On the other hand, it also has to endure the full risk associated with the storing and shipping carried out by the collateral managers involved in the deal, as well as other ownership-related risks such as possible environmental damage and legal liabilities. Repurchase agreements are also more attractive for farmers, who can gain access to cheaper funding due to the reduced risk of loan recover (IFC, 2011).

Islamic Finance

Islamic finance is a type of finance that follows the principles of the *Shari'a* (the legal system derived from the religious precepts of Islam). An important element in *Shari'a*-compliant

finance is the explicit prohibition to accept interests on money loans (*riba*, or usury). The parties involved must all share the risks and rewards involved in their business transactions, avoiding undue speculation or exploitation of one of the parts. Furthermore, it is forbidden to invest in industries whose products or services go against Islamic precepts, making them *haaram* ("sinful"). A few examples include pork, alcohol and tobacco. The rationale behind many Islamic finance tools is similar to that of traditional financial provision mechanisms, for example *Ijara* (financial leasing), *Murabaha* (working capital loan), *Ajaar* (lease purchase agreement).

Islamic finance in its modern acceptation is a relatively new and rapidly growing phenomenon. Although nowadays the use of Islamic finance is still not widespread in the agricultural sector of developing countries, there are increasing examples of Islamic financing instruments being applied to specific agricultural contexts (e.g. Sudan, Ethiopia), which have the potential to foster greater financial intermediation and inclusion of Muslim smallholders and ASMEs.

2.6 Concluding remarks

Nowadays, a rising number of innovative experiences can be witnessed in developing world agriculture related to the delivery of a wide set of agricultural financial products -and other investment vehicles- which are on average more inclusive of poorer rural families dependent on agriculture. Nevertheless, achieving this higher level of inclusion is greatly dependent on a set of pre-existing factors. These include the presence of enabling financial and agricultural environments, as well as the ability of a diverse set of stakeholders (such as formal financial institutions, producer groups, domestic and foreign agribusiness firms, and public agencies) to develop win-win collaboration models which can pool and channel the individual strengths of these actors, with the aim of delivering flexible financial services and properly managing investment risk.

However, these innovative experiences remain the exception rather than the norm in the context of developing countries, as systematic partnerships between stakeholders face strong constraints that curtail their creation. These barriers relate to the significant transaction costs faced by the public and private actors involved, who operate in widely different professional networks and are incapable of recognizing the other parties' comparative advantages, thus

finding it challenging to identify feasible collaboration models. As a consequence of this lack of collaborative efforts, the present-day scenario in agricultural investment remains one of major underexploited opportunities.

A principal objective of FAO's private sector dialogue is to seek new ways to reduce the constraints to collaboration between these different categories of actors, by fostering debate and illustrating innovative best practices which employ a coordinated approach to investment that draws on the unique strengths of different agents. In this sense, a number of approaches (such as value-chain financing, technical assistance for the demand and supply sectors in rural financial markets, and coordination among public interventions to reduce private sector constraints) have shown great potential in fostering more sustainable private investments in agriculture, capable of bringing greater developmental impact to the sector.

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Annex 1 – Focus questions

The following key questions were developed in order to act as a driver of the debate during the Fourth FAO private sector partnerships dialogue, which uses the present background paper as a reference.

Parallel Session 1 – “Unlocking private investments in agriculture: a case for public-private dialogue”

- 1) *Given the great diversity of investor types in the agriculture sector of developing countries, is there a chance for greater coordination among them, so that the constraints faced by the majority are correctly assessed by policymakers independently of the investors’ lobbying power?*
- 2) *Is it possible to develop a more systematic framework of collaboration between foreign and domestic private investors in agriculture so that local and global knowledge and equity can be merged? How can the public sector encourage this process?*
- 3) *Is it possible to increase Foreign Direct Investment (FDI) in developing world agriculture while enhancing its developmental impact and sustainability? What can be done to avoid its controversial impact on local communities?*

Parallel Session 2 - “Challenges to and opportunities for achieving more inclusive rural and agricultural financial systems”

- 1) *Are formal financial institutions capable of capturing part of the rural financial markets currently serviced by non-financial actors in developing countries? What limits the possibility of partnerships between these two types of financial service providers?*
- 2) *How can the private sector encourage much needed coordination within public institutions to foster the implementation of more holistic policies that enable the delivery of a wide range of rural and agricultural financial services in developing countries?*

- 3) *Is it possible to break the barriers for exchange of knowledge between the formal financial sector and the various networks of agricultural value chain actors in developing countries?*