AGRICULTURAL VALUE CHAIN FINANCING: PANACEA FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

Ebele O. Igwemeka
University of Nigeria (Enugu Campus)

&

Faith Chinyere Ekwunife
Evangel University, Akaeze

Abstract
In the past, the agricultural financing policy of the Nigerian government emphasized primary production without paying attention to the marketing of agricultural products. Consequently, the current emphasis by financial institutions on value chain financing has further compounded the problem of access to credit by smallholder farmers who account for over 90 per cent of agricultural production in Nigeria and do not have access to lucrative markets, nor adequate processing and storage facilities. More worrisome is how the right amount of investment can be acquired, particularly in a challenging environment where financial uncertainty causes a reduction in available resources along with increased fear and scrutiny of risk. From the perspective of other climes farmer linkages, improving access to improved seeds, fertilizers and production technology, enhancing farmer integration into the seed production, processing and marketing chain through farmer organization, training and out-grower contracts among others will boost agricultural value chain financing that will lead to sustainable development.

Keywords: Agricultural value chain financing, smallholder farmers, sustainable development

Introduction
Finance for agriculture is an issue on which almost most economies hold strong opinions which originally seem complex to reconcile. On a closer look, however, much of this discrepancy depended on the individual viewpoint of the subject, and their relative interest in poverty alleviation measures versus economic growth indicators. Access to sufficient financing is frequently identified as one of the key inhibitors to achieving long-term sustainability for Africa’s agricultural practitioners, mainly the question is how the right amount of investment can be acquired, particularly in a challenging environment where financial uncertainty causes a reduction in available resources along with increased fear and scrutiny of risk. Small-holder and subsistence-level farmers normally must resort to borrowing from community members or pooling resources to make ends meet.

Agriculture continues to be a fundamental instrument for sustainable development and poverty reduction’ (World Bank, 2008), yet, financial constraints in agriculture remain pervasive, and they are costly and inequitably distributed, severely limiting smallholders’ ability to compete’ Miller, et al (2010). Unexpected and remarkable changes in food prices have exposed the weakness of agricultural production in meeting global demand and call for amplified investment in agriculture at all levels. The atmosphere for agricultural finance is additionally influenced by the mounting focus on control in the agricultural sector. Motivated by gains from economies of scale and globalization of the food chain along with access to resources, multinational and other interconnected agribusinesses have a greater impact in a sector that is characterized by growing vertical and horizontal integration. The consequences of contracting
integration are intense, especially for smallholders and others who are outside of the interlinked chains.

In a nutshell, agriculture is developing towards a modern, very competitive system motivated by consumer demand for higher value, more processed products, and consistent quality and safety standards. Therefore, improving smallholders’ productivity, competitiveness and their participation in these global value chains have been observed as priorities of the agriculture-for-development agenda (World Bank, 2008).

Agricultural value chain finance offers an opportunity to lessen cost and risk in the financing and reach out to smallholder farmers. For financial institutions, value chain finance creates the drive to look past the direct recipient of finance to better appreciate the competitiveness and risks in the sector altogether and to craft products that best fit the needs of the businesses in the chain. Naturally, this more comprehensive approach to agricultural financing is not unique to value chain finance; some leading financial organizations in the sector use such a focus in their loan assessment processes but this is more often not the case. Indeed, much of the finance accessible to value chains is not from financial institutions but rather from others within the chain. The growth of integrated value chains is recommended by the Food and Agriculture Organization (FAO, 2012) as an effectual approach to ensure the income of agricultural producers and their access to financing through value chain linkages. Such an approach can play an important function in linking agricultural producers to markets, which is particularly advantageous to small-scale producers. The main role of direct business relationships, and the level of sustainability that these market relationships supply, is also highlighted by the World Council of Credit Unions (2009). Agricultural value chains that are doing well are characterized by the use of financial products that meet definite needs, with credit risk that is radically reduced by the techniques employed to disburse and collect funds. Value chain finance can simultaneously help the chains become more inclusive, by making resources accessible for smallholders to incorporate into higher-value markets.

Nigeria has a large expanse of agricultural land. The most important part of Nigeria's economy was once agriculture and it provided jobs for more than 70 per cent of the population until the discovery of oil. Thus, economic activities recorded huge signs of growth. With the discovery of oil, however, world oil price increases from 1973 produced rapid economic growth in transportation, construction, manufacturing, and government services. Thus this led to a great influx of rural people into the larger urban centres, agricultural production was stagnated to such an extent that cash crops such as palm oil, peanuts (groundnuts), and cotton were no longer significant export commodities, Akpan et al (2018). Nigeria has a total land area of 77.7 per cent which is 910.8 thousand square kilometres. Comprising 37.3 per cent of arable land, where 7.4 per cent is for permanent crop and 9.0 per cent is under forest (World Bank, 2015). This represents 32 million hectares cultivated while not getting the right value for those hectares. For the last 4 to 5 years the Nigerian agriculture sector's contribution to GDP has hovered between 22 to 25 per cent, but in 2017 it hit an all-time low of 21 per cent contribution to GDP. Therefore, the arable land is underutilized. Nigeria's agriculture is diverse, presenting various opportunities. It includes four sub-sectors, namely; crop, livestock, fishery and forestry. The crop sub-sector accounts for about 90.0 per cent of agricultural production in Nigeria, followed by the livestock sub-sector which contributes about 7.0 per cent. Fishing activities contribute about 2.0 per cent and forestry activities account for about 1.0 per cent. However, the majority of the farming population are small-holders with less than 2 hectares under cropping, yet
accounting for over 90 per cent of agricultural output in the country. They still rely mainly on rain-fed farming, characterized by low use of modern/improved farm inputs (seeds, fertilizer, pesticides, etc.) and poor access to credit. Consequently, yields are still very low. Thus, Nigeria remains a food-deficit country blessed as it is with abundant agro-ecological resources and diversity. High import dependency persists. Food and livestock import grew by 65.25 per cent from N676.91 billion in 2013 to N1,118.61 billion in 2014, which constituted 15.47 per cent of total imports in 2014 (NBS, 2014). Food and Agricultural Organization of the United Nations (FAO) has estimated Nigeria’s cereal import (mostly rice and wheat) for 2015 at over 7.5 million tonnes and, Nigeria is said to be the largest rice importer in Africa (Evbuomwan, et al, 2017).

The question is how the right amount of investment can be acquired, particularly in a challenging environment where financial uncertainty causes a reduction in available resources along with increased fear and scrutiny of risk. An answer to addressing these constraints goes beyond conventional measures since agriculture has always been difficult to finance through formal financial institutions and approaches. Though Nigeria agriculture has high potential but actualizing it depends on concerted efforts to address the major challenges confronting the sector which include among others; access to finance by small scale farmers. This study is mainly focused on procedures to mobilise the delivery of private sector finance to increase the quantity, quality, and economic value of Nigerian agricultural output for sustainable development.

**Review of related literature**

**Concept of value chain**

Value Chain (VC) involves the sequential linkages through which raw materials and resources are transformed into products for the market. It is a set of linked activities that work to add value to a product; it consists of actors and actions that make a product better while linking commodity producers to processors and markets. A value chain encompasses the flow of products, knowledge and information, finance, payments, and the social capital needed to organize producers and communities. The value chain notion allows integration of the various players in agriculture production, processing and marketing. It defines the various roles of players while at the same time, scope and purpose of partnerships that can be established, Muriruri (2007).

For agriculture, the term value chain is most suitable for highlighting the value addition, that is, the transformation of the inputs and products as they pass through the chain. The concept of ‘agricultural value chain’ includes the full range of activities and participants involved in moving agricultural products from input suppliers to farmers’ fields, and ultimately, to consumers’ tables. Each stakeholder or process in the chain has a link to the next for the processes to form a viable chain. At each stage, some further transformation or enhancement is made to the product – ranging from simply moving the product from one point to another, to complex processing and packaging. Therefore, a value chain is often defined as the progression of value-adding activities, from production to consumption, through processing and commercialization. Each segment of a chain has one or more backward and forward linkages. A chain is only as strong as its weakest link and so the stronger the links, the more protected the flow of products and services within the chain. The ‘farm to table' integration of a chain can increase competence and value through lessening of wastage, ensuring food safety, preserving freshness, decreasing consumer prices, and enhancing farmer prices and incomes. At one end
of the agricultural value chain are the producers – the farmers who grow crops and raise animals. At the other end are the consumers who eat, drink, wear and use the final products. And, in the middle are many thousands of men and women and small and large businesses. Each person and each business performs one small step in the chain, and each adds value along the way – by growing, buying, selling, processing, transporting, storing, checking, and packaging. Efficient value chains normally reduce the use of intermediaries in the chain and strengthen value-added activities because of better technology and inputs, farm gate procurement, upgraded infrastructure, improved price opportunities through demand-driven production, and facilitation of more secure procurement for food processing and exports.

Agricultural Value Chain (AVC) identifies the set of actors (private, public, including service providers) and a set of activities that bring a basic agricultural product from production in the field to final consumption, where at each stage value is added to the product. It may include production, processing, packaging, storage, transport and distribution. Each segment of a chain has one or more backward and forward linkages. Thus, with AVCs, we move away from a commercial and a segmented form of agriculture in which many separate links operate in isolation, out of sync with each other, in which farmers produce in bulk, are exposed to price risks and capital needs and produce independently. The AVC is based on integrated systems, differentiated production, risk management, information needs and interdependent farmers.

**The concept of agricultural value chain finance**

Agricultural Value Chain Finance (AVCF) is thus, the flows of funds to and among the various links within the AVC in terms of financial services and products and support services that flow to and/or through VC to address and lessen constraints, and accomplish the needs of those involved in that chain, be it a need for finance, a need to secure sales, procure products, reduce risk and/or improve efficiency within the chain and thereby improve the development of the chain (Fries, 2007). Stated another way, it is any or all of the financial services, products and support services flowing to and/or through a value chain to address the needs and constraints of those concerned in that chain, be it a need to access finance, establish sales, procure products, diminish risk and/or improve competence within the chain. The role of value chain finance is to deal with the needs and constraints of those concerned in that chain. This is often a need for finance but it is also usually used as a way to maintain sales, procure products, reduce risk and/or increase efficiency within the chain. The inclusive nature of value chain finance, therefore, makes it vital to appreciate the nature of each chain, its actors and their interests. Some successful financial institutions have done this in their lending operations but many have not. Even fewer have multiparty financing measures in agriculture which are widespread in value chain finance among producers, suppliers, wholesalers and others.

The comprehensive nature of value chain finance, therefore, makes it essential to analyse and fully understand the value chain in all aspects. The term is used here for both internal and external forms of finance that are developing along with the agricultural value chains that they serve:

1. Internal value chain finance is that which takes place within the value chain such as when an input supplier provides credit to a farmer, or when a lead firm advances funds to a market intermediary.
2. External value chain finance is that which is made possible by value chain relationships and mechanisms: for example, a bank issues a loan to farmers based on a contract with a trusted buyer or a warehouse receipt from a recognized storage facility. VCF is a comprehensive
approach which looks beyond the direct borrower to their linkages to best structure financing according to those needs (AfDB, 2012).

**Key participants of agriculture value chain**

There are five main components to consider in VC analysis. These are the actors directly providing inputs, producing and distributing the product; the relationships and embedded services between these actors; the markets, the financial, general and specialized services coming from sources external to the production and distribution chain, and the enabling environment, including tax and trade policies and regulations (Miller, et al 2010).

**Primary producers/farmers:** The primary producers/ growers in AVCs are very significant actors and their position in the chain becomes the main driver to establish the sustainability of the VC s. The bulk of farmers in African countries are single cash crop farmers supported by some food production or vice versa. Though, there are also specialized chain actors, who can produce quality cash crops for the AVC. Others may be multi-activity chain farmers, who are not only involved in the production process but also other activities of VC like grading, primary processing, and local marketing.

**Agri-input dealers:** are essential to the AVCF as they not only provide seeds, pesticides, fertilizers and farm equipment (machinery) to farmers but also act as extension arms giving technical information to the farmer. This is a vital input in the VC and its capacities and quality will determine to a large extent the quality and quantity of the end-produce. Just as with any other small trader, this player will be motivated by the profit and a desire to boost sales volumes. Capacity building on this tier will guarantee that the farmers get the right advice. In the case of smallholders, this tier may have to be supported by the aggregator (processor) to ensure that the farmer gets the right quantity and quality of inputs. Also, donor initiatives and credit programs can support the farmer in getting the required inputs and can help agri-input dealers to enhance their businesses. In some instances, an agri-input dealer may also become an aggregator, supplying inputs and then procuring the produce. In this case, of course, the agri-input dealer plays a major role at the producer end and can corner a larger share of the value leaving a minor share for the primary producer.

**Agri-processing companies** play a major role in adding value to the agri-commodity and in many cases will link up with wholesalers or retailers to market the product. Agri-processing companies can be small scale enterprises or can even be large corporations having multi-country operations. This is another important player in the VC which can spur rural development, ensure off-take of commodities from the producers and at the same time provide employment opportunities. The challenges faced by small agri-processing companies that VCF can help to address include challenging policy environment, lack of availability of input material, cost of input and price fluctuations, lack of technology for processing, competition from multi-nationals and lack of credit availability At the end of the chain is the retailer (including the supermarkets, restaurants and exporters), who transmits the consumer demands to the processors and triggers the production process. Without finance, each of the participants would be operating at a suboptimal level.

**Markets:** The markets for AVCs are local, regional and global for both inputs and finished products. However, the more competitive VC s are becoming ‘global’ or, at least, regional, as their component activities are geographically scattered across borders to multiple country locations. On the whole, the proportion of products conceived, manufactured, and consumed
totally within the geographic boundaries of a single country is dwindling. Even services, such as financial, consulting, and customer support services are becoming mobile across borders. Globalization or regionalization of VCs has also given rise to international (or regional) production network: intra- and inter-firm, which represents linkages within or among a group of selected firms in a particular VC for producing specific products.

**Services:** AVCs rely on several services external to it in the form of farm extension, finance, accounting, leasing, market information, identification of end market, and promotion of a collective organization, among others. The more competent the provision of the services to the VC, the better it can drive and improve the position of the participants in the chain.

**The challenges of value chain finance in agriculture**
Small-scale farmers in Africa and elsewhere in the world often say that receiving low prices for their produce is a major challenge. Typically, a farmer waits for traders to visit his farm. The trader offers a low price and won’t buy the entire crop. The farmer is unhappy – the time and effort are not well-rewarded. They may blame the trader for their problems. Farmers and traders often fight over prices. As individuals, small-scale farmers are often at a disadvantage in these kinds of arrangements. Because many farmers grow crops or raise animals on an individual basis, they have little bargaining power. They have little or no influence on the price traders pay them for their produce, or the price they pay input suppliers for seeds, fertilizers, pesticides, etc.

Also, farmers often lack information about the market for their produce. For example, they may not know how much their produce is really worth, and how much more they could earn if, for example, they transported it to a nearby market rather than selling it to a trader. They may not know who the other players in the market are; they may not know what happens to their produce after they sell it, and they may not know what types of products consumers want. In many cases, the farmer is growing the wrong crop for the market.

Financing to agriculture has always been susceptible to political interests. In many instances, loans have been made for political motives and the collection has been difficult due to the inability or reluctance to prosecute those unwilling to repay, and loans have been forgiven or granted moratoriums on repayment, all of which lead to an unwillingness to lend to agriculture.

**Value chain business models**
Value chain finance is particularly useful in helping link small farmers and agribusinesses into effective market systems. With models that promote economies of scale and reduce risks for lenders and buyers, smallholder farmers are more viable contributors to modern agricultural systems. Because smallholder production is important in many value chains for both economic and social considerations, special emphasis must be given to models which allow them to fully participate in value chains. Vorley (2008) illustrates the typical organization of smallholder production and marketing – that is, the relation of farmers to the market and/or the larger system. This analysis offers a basis for value chain business models, and the accompanying finance, which is expanded upon in the following sections:

- **Producer-driven models**
These are driven from the bottom end of the chain. They can be successful but face two major difficulties. First, producers may not understand the market needs as well as those in the chain
who are closer to the end-user. Secondly, producers often struggle for financing unless they can find strong partners and/or can get assistance for financing and fore-linking to reliable and competitive markets and partners. While the start-up years are particularly difficult for these and other reasons – e.g., lack of capacity and economies of scale – with time and support, producer models can become strong and begin to access financing based upon the strength of their transaction flows and market partners. The many strong coffee cooperatives in Costa Rica and other countries are an example of such success over time.

- **Buyer-driven value chain models**
  Buyer-driven models form the foundation for many of the applications of value chain financing. It is often in the buyer's interest to procure a flow of products and use finance as a way of facilitating and/or committing producers, processors and others in the chain to sell to them under specified conditions. Most often, when financing is involved, the conditions are binding through contracts. Whether these are formally registered or not, the agreements can still form the basis for loan recovery. Contract farming is the most common buyer-driven value chain model. As the name suggests, it involves farm-level or farmer association-level contracts but these contracts usually originate from one or more levels further along the value chain. The contracts can be formalized in the legal system or can be informal, but binding agreements. Agro-food chain coordination can be exercised in several ways, ranging from tight vertically integrated operations, with full ownership and control by a single firm, to more fragmented coordination arrangements, where there are no formal but rather ad hoc transactions between producers and their buyers. Contract farming is a modality of chain coordination whereby transactions between producers and other chain stakeholders are governed by pre-established agreements that can be more or less formal. The contract (formal or informal farming agreement) may involve advancing inputs, funds and/or technical support, or it might be limited to product sales conditions, such as prices, quantities and delivery dates (Winn et al., 2009). The interest in contract farming as a chain governance strategy has grown considerably in the recent past, probably because of the trends affecting agro-food systems, which are leading into more tightly aligned supply chains (Da Silva, 2007).

**Agriculture and sustainable development**
Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The United Nation's Sustainable Development Goal number 2 in 2016 is “zero hunger”. This is a call to specifically: end hunger, achieve food security and improved nutrition and promote sustainable agriculture. To fulfil this goal, the United Nations has identified a series of specific targets as well as the means of implementation for reaching them.

Hunger: Tackling hunger is not only about boosting food production; it's also about increasing income and strengthening markets so that people can access food even if a crisis prevents them from growing enough themselves. An end to hunger is possible by 2030, according to the Food and Agriculture Organisation of the United Nations who predicted that hunger levels are likely to decrease by hundreds of millions by 2030, but notes that Sub-Saharan Africa as a region and rural women as a demographic group may still be most at risk. Bill and Melinda Gates made their assertion that Africa will be able to feed itself by 2030 – by accelerating the rate of innovation and access to an agricultural extension to smallholder farmers (African Development Bank Group, 2013).
Productivity and income: agricultural development is closely related to economic growth that benefits the poor. The World Bank has estimated that agriculture development is about two to four times more effective in raising incomes among the poorest growth from any sector. Agriculture is the single largest employer in the world, providing a livelihood for 40 per cent of today’s global population. It is the largest source of income and jobs for poor rural households (African Development Bank Group, 2013).

Recent developments in Nigeria

Nigeria’s Agriculture Promotion Policy 2016-2020 - The Agriculture Promotion Policy 2016-2020 document, “The Green Alternative” is the outcome of an intensive consultative process starting in November 2015 through April 2016, and involving multiple stakeholders. From farmer groups to investors to processors to lenders to civil servants to academics, many stakeholders provided detailed input, commentary, and support.

Quality Control and Standardization Mandate Tagged (Zero Reject) - to entrench best practices in the food handling chain and linking stakeholders and farmers for quality consumption, export drive and for Agricultural Development Action Plan (Ewepu, 2016).

Lessons from other climes

Malawi: The value chain is facilitated in response to harsh financing gaps in agribusiness in Southern Africa which is characterized by asset finance needs and working capital needs. The reasons for a lack of access to finance, especially by startup businesses and early-stage expansions have mainly been a shortage of risk capital and poor business management capacity. The following three-pronged business model was developed to address the needs in the seed chain: processing businesses, input supply businesses, and farmer businesses (African Development Bank Group, 2013).

Tanzania: The Kilicafe was created, an organization that is now owned by 9,000 smallholder farmers. It works with local and international financial institutions to plan financial products that serve those in the value chain. These products range from short-term input credit and sales pre-financing to multi-year loans used by farmers to invest in centralized processing facilities. Credit is guaranteed through a variety of innovative ways, including private guarantee funds, warehouse receipts, forward sales to speciality coffee buyers. (African Development Bank Group, 2013).

Mexico: Agave is a raw material that is grown by smallholder farmers, and is a key ingredient in the production of tequila. Agave production is an interesting example of a value chain since it is a highly complex activity by comparison with the average farm commodity. It is highly cyclical, grown mainly by small-scale farmers with little access to formal financing, and affected by wild price swings. As such, a banker is unlikely to take on the risk of financing an agave grower. However, the same banker is willing to consider and handle financing for a tequila producer that will use the money to take on the six-year risk of financing a farmer, because he/she understands the value chain and how it works. (African Development Bank Group, 2013).

Costa Rica: Chestnut Hill Farms market produce such as asparagus, mangoes, melons and pineapples from Arizona, Brazil, California, Costa Rica, Ecuador, Guatemala, Honduras, Peru
and Puerto Rico. Its customers are supermarket chains in the United States. Over the past five years, the company has also been selling to the fresh processed fruit and vegetable sector and supermarket chains in Europe, as well as wholesalers. Its main objective is to add value to production, packaging and marketing. Chestnut Hill Farms is not a financial entity, but it has learned to read signals about where it can and should take risks with the farmers.

Uganda: Africa Rural Development Support Initiative (ARUDESI) has been able to work with 8,000 farmers to organize 600 farmer groups, consisting of 30 farmers per group. These farmers were able to market a total of 1,200 metric tons of green coffee in the last 3 years, increasing income of an average of 40 per cent over equivalent green coffee at farm gate price. (ADBG, 2013).

Rwanda: Murty, et al, (2012) found from the data collected from selected respondents that impact of access to value chain financing products is directly linked to the levels of profit and production, in a study on value chain financing a solution to the problems and challenges of access to finance of small-scale farmers in Rwanda.

The implication for Nigeria
In Nigeria, Ecobank has entered into a strategic partnership with the Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending (NIRSAL) with an N15 billion agricultural investment scheme being the first tranche in agricultural value chain financing. The partnership between both institutions is in line with the Central Bank of Nigeria (CBN)'s request that banks provide more funding to the agriculture sector. NIRSAL was set up by the Federal Governmental as an innovative mechanism targeted at de-risking lending to the agricultural sector. It is designed to provide the singular transformational and one bullet solution to break the seeming jinx in Nigeria's agricultural lending and development. With this approach, all the players in the agricultural value chain are locked-in with an end-to-end approach and near-zero cash handling system under a de-risked ecosystem to optimize agricultural value chain financing. The Managing Director/CEO of NIRSAL, Mr Aliyu Abdulhameed stated that this unique approach to agribusiness creates value for both farmers and financiers, Adeola (2019).

The above development is a milestone that needs to be well articulated. Experiences from other climes have revealed that some important actions have to be taken as well such as farmer linkages, facilitating access to improved seeds, fertilizers and production technology, facilitating farmer integration into the seed production, processing and marketing chain through farmer organization, training and outgrower contracts, secure market for the young seed businesses and more secure repayment of the financing and growing expertise in the chain.

Evbuomwan, et al, (2017) examined the prerequisite for agricultural value chain financing and small scale farmers in Nigeria and found out that one of the conditions for making the notion of agricultural value chain financing work competently in Nigeria where over 90 per cent of agricultural output in the country is produced by small-holders with less than 2 hectares under cropping is linking farmers to markets.

Recommendation
The private sector can be engaged to finance agriculture. The Indian government, for example, has made an obligatory target on domestic and foreign banks to provide 40 per cent of their lending to priority sectors. Among the priority sectors, a specific portion of lending has to be granted to farmers and small organizations of farmers (Reserve Bank of India, 2013). Banks
are also encouraged to open branches in smaller cities to push the all-encompassing finance agenda.

The government can act as a catalyst without disbursing public funds itself. This function is particularly important in value chain finance, where the government can build up a business model to connect the different actors that would gain from financing one another (IFAD, 2012).

References

African Development Bank Group (2013). Agricultural Value Chain Financing (AVCF) and Development for Enhanced Export Competitiveness


Food and Agricultural Organization – FAO (2012). The State of food and Agriculture: Investing in Agriculture for a Better Future,


Izuora, C. (2019). World Bank’s $200m Project Targets 360,000 Farmers, June 24, Leadership.


Murty S. K. & Nkubito, K., (2012) "Is value chain financing a solution to the problems and challenges of access to finance of small-scale farmers in Rwanda?" Managerial Finance, Vol. 38 Issue: 10, pp.993-1004


World Bank (2015): World Development Indicators, April, Washington DC.