Thoughts on Raising Agricultural Productivity in Nigeria: Lessons from other countries.

This post is a perspective on the need for agricultural development in Nigeria and what well-meaning Nigerians can do to support this effort. In future posts I intend to expand on these perspectives. Beyond theory, there are many individuals and companies who have ventured into crop and livestock agriculture with ample commercial agricultural practice experience. These persons or groups have seen the thick and thin of the agriculture in Nigeria and may have practical insights into what may or may not work in the context of the current geopolitical arrangement of Nigeria.

I start by identifying some of the issue, or challenges facing agriculture in Nigeria. Some of these factors are well known. For a refresher, these include, weak implementation of enduring policies, land fragmentation, poor access to agricultural credit, weak access to market, internal insecurity, misuse of subsidy and lack of sustained planning and implementation. There is no country of the world today that has not had any and many of these problems to face in developing their agriculture. Problem recognized is problem half solved. The attempt of this post is not to get into the details of how some of these challenges have been addressed in other countries but to show that if this has been done successfully, overseas, we can also do it here.

As a background to these suggestions, I would like to draw lessons from a few countries that have leveraged agriculture to achieve industrial development. I will highlight a few of the things they did and the challenges they faced.

Countries like the USA, the Netherlands, Germany, and Ethiopia, have used agriculture as a foundation for economic development, progressing through several stages that led to industrialization and diversified economies. Here is an overview of how they made this transition:

1. Agricultural Innovation and Productivity Gains in other countries

Increase in agricultural productivity in The United States from the early 19th century, was driven by technological advancements such as the cotton gin, mechanical reapers, and later, the tractor. The expansion of the railroad network also helped farmers access distant markets. Land policies, like the Homestead Act, allowed for the widespread distribution of land, encouraging farming. Equally contributive in no small measure was the availability of cheap labour through slavery. These measures helped sustain increase cultivated land and production.

The Netherlands is a small country by landmass. Most of the space is occupied by the sea. The country’s agricultural innovation began in the 17th century with advanced land reclamation techniques (poldering) and continued into the 19th and 20th centuries with the adoption of intensive farming methods. The country also benefited from the development of a robust dairy industry and greenhouse horticulture.

The case of Germany is interesting because of similarities with Nigeria. Germany's agricultural development was marked by smaller, more fragmented landholdings due to historical factors, such as feudalism and later, the impact of the agrarian reforms in the 19th century. The country overcame these challenges through land consolidation efforts and the modernization of farming techniques. Germany also focused on the development of a cooperative movement

(Raiffeisen cooperatives) to help small farmers access credit and resources, which was essential for improving productivity.

Without addressing land reforms and aggregating small land holdings into larger parcels, it will hardly be profitable to mechanize and achieve increased productivity. The application of science and technology also contributed through research and development. Crop research focused on development of high yielding and disease resistant crop varieties, while livestock research enhanced animal growth rate, reduced mortality, increased milk, and wool yield.

The Key success factors for these countries are:

a) Investment in research and development (R&D) in agriculture.

b) Implementation of supportive policies that promoted land aggregation, cooperatives, and market access.

c) Developing synergies between the public and private sectors.

d) Development of education systems and research institutions to support agricultural extension services, cooperatives, and industrial innovation.

e) Governments played an active role in facilitating the transition by investing in infrastructure such as transportation networks, to open access to rural areas, and providing incentives for industrial development.

f) In Germany and Ethiopia, the cooperative movement was crucial for enabling small farmers to pool resources and invest in modern agricultural practices.

g) Focus on producing high-value agricultural crops or livestock products that generated additional income to fund industrial growth.

Some of The Challenges the countries faced included:

(I) Fragmented landholdings in the Germany and Netherlands were consolidated over time, to improving efficiency and facilitate mechanization.

(II) In the USA, the challenge of integrating vast new territories into the economy was met through infrastructure expansion.

(III) Globalization and competition from other countries for market access.

(IV) Environmental issues arising from intensification.

What can you do?

Everyone can do something to contribute to the agricultural development of the country. Whether you are a smallholder farmer, a government official/department, the educational institution, a philanthropist or an individual entrepreneur, your support can make good impact. In terms of concrete suggestions, I have highlighted a few potential areas of support.

1. Make a case for an active national policy supporting research into science and technology. No nation has succeeded in moving from an agrarian to an industrial economy without investment in research. Making this case can be in the form of a sponsored newspaper article, a white paper submitted to the government, and or making financial contribution to research in agriculture especially in the development/production of improved seeds and machinery.

2. Sponsor a few students every year during their practical year for internships in private companies or with reputable practitioners, where they can learn real industry skills. Identify a few such companies and facilitate the dialogue to work out this internship support.

3. Float an annual competition to fund youth agribusiness upstarts. This could be targeted at educational institutions to support final year agriculture students with project ideas that have the potential to be turned into a private business. You can either directly support the winner or contribute by looking for financers who are willing to partner in seeing such an idea converted to agribusiness. Individuals can partner with existing efforts in this area such as the Master Card youth, the Tony Elumelu Foundation etc.

4. Broker dialogue with agro-based industries. The objective of this is to work with small and medium holder businesses, to identify pertinent industry challenges and find a way to address such challenges through research and networking. For instance, the gari produced in Nigeria and exported overseas contains a lot of sand and does not compare in quality with the processed gari from a neighboring West African country. Agro-processing, prevention of post-harvest losses, the use of standard measurement, packaging, transparent marketing etc., are areas needing attention.

5. Invest in agribusiness. Agriculture is the biggest untapped business opportunity in developing countries. Individuals with the resource capacity can set up agricultural production and processing business in any or multiple states of the country. Starting from a good feasibility study to developing a fundable business plan and implementation, talk to experts to guide your steps before venturing into it. Agribusiness does not always entail starting from the scratch. There are several up- and down-stream sectors for various agricultural commodities. You can identify a sector and one or a few pertinent challenges where you can invest.

Every human has needs as identified by Maslow's hierarchy of needs. These include Physiological, (food, water, shelter), Safety (security, health), Love & Belonging (friendship, family, intimacy), Esteem (respect, recognition, confidence), and Self-Actualization (reaching full potential, creativity). A great lesson from the hierarchy of these needs is that lower-level needs must be met before higher-level ones become motivators. These lower-levels needs of food, clothing, and shelters are met principally through agriculture.