UNIT ONE: Introduction to Agribusiness Management

Objectives

- Define and understand the agribusiness concept.
- Describe the key agribusiness sectors: structure & composition.
- Highlight the dimension and scope of agribusiness.
- Explain the unique features of Agribusiness.
- Highlight the importance of Agribusiness.
- Describe the major challenges facing the Agribusiness sector in Zambia.

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1.1 Introduction and Definition

The word agriculture is usually associated with ploughing a field, planting seed, harvesting a crop, milking cows, or feeding livestock. Until recently, this was a fairly accurate picture, but todays' agriculture is radically different. Agriculture has evolved into agribusiness and has become a vast and complex system that reaches far beyond the farm to include all those who are involved: in supplying inputs for agriculture production, and those involved in bringing food and fiber to consumers.

Agribusiness systems have undergone rapid transformation as new industries have evolved and traditional farming operations have grown larger and more specialized. The transformation did not happen overnight, but came slowly in response to a variety of forces. For instance in Zambia, various factors have informed the current changes in the agribusiness systems these amongst others include:

- Market & trade liberalisation, regional integration & improved conditions for foreign direct investments (FDI) that have enhanced private sector participation in most agricultural products supply chains;
- Rapid population growth, urbanization & increasing incomes;
- Higher food prices created opportunities for primary commodity production & associated agro-industries targeting both the domestic and export markets; and

- Advancements in technology has encouraged the development of new processing technologies to respond to changing consumer & trading requirements in terms of taste, texture, nutritional and health benefits, food safety, environmental sustainability and processing methods.

Knowing something about how agribusiness came about, makes it easier to understand how this system operates today and how it is likely to change in the future.

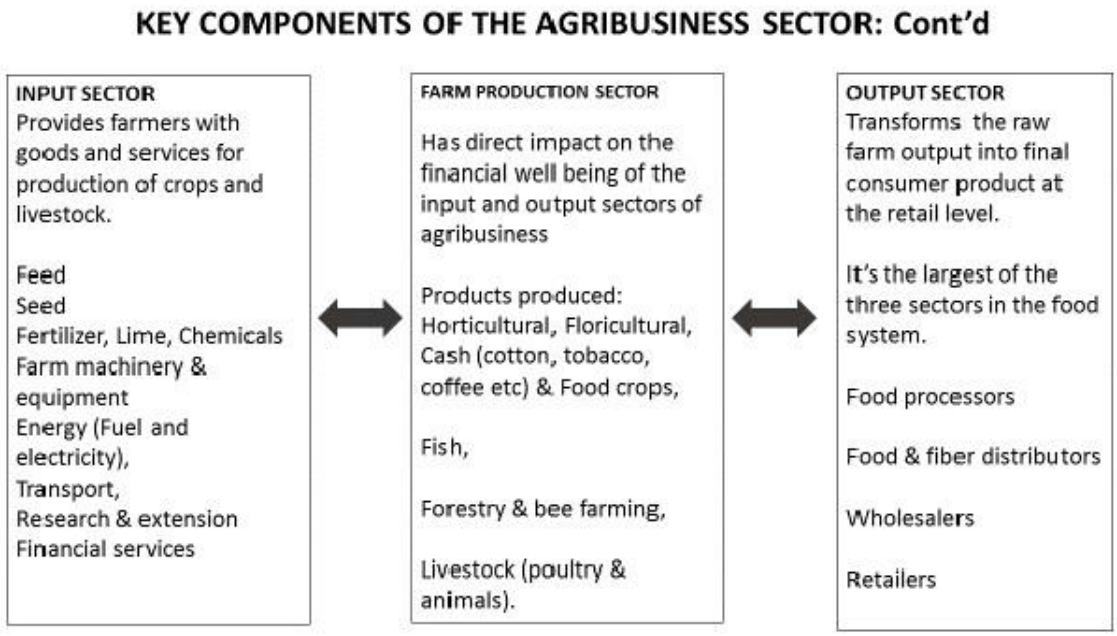
1.2 The Origins of the Concept of Agribusiness

Agri-business as a concept was born in Harvard University in 1957 with the publication of the book "A concept of Agri-business", written by John David and Gold Berg. They define agribusiness as "the *sum total of all operations involved in the manufacture and distribution of farm supplies, production activities on the farm, storage, processing and distribution of farm commodities and items made from them" (John David & Gold Berg, 1957).*

What is striking about this definition is the remarkable variety of businesses from input provision to farm production, output and other supportive sectors. This multidisciplinary nature of agribusiness increasingly presents challenges to agribusiness managers that need to have the necessary business & management skills to run these enterprises successfully. While the origins of agribusiness management are strongly rooted in agricultural economics, specifically farm management & agricultural marketing; over the years, the discipline is increasingly based within the domain of management science. Against this background Akridge et al. (2002) define agribusiness management as "*The business and management activities performed by firms that provide inputs to the farm sector, produce farm products and /or process, transport, finance, handle or market farm products".*

1.3 Key Components of the Agribusiness sector

Agribusiness can be categorized into three economically interdependent sectors – these are: (i) input, (ii) farm (production) and (iii) output (product) sector and supporting sectors.



The Input Sector

- This sector deals with the supply of goods and services required by the farmers for raising crops, livestock and other allied enterprises. These include seeds, fertilizers, chemicals, machinery and equipment, land, energy (fuel and electricity), transport, research and extension services and financial services, *inter alia.*
- Farm productivity has increased in both developed and developing countries due to among other things efficiency in production.
- This efficiency can be partly attributed to the input supply sector: improved seed varieties and feed; farm machinery and equipment; and facilitating services offered to farmers to help them improve the output – input ratio.
- While farmers used to produce most of their own inputs a few decades ago, today they purchase roughly 70% of all inputs used for production.
- Therefore, an efficient and effective input sector capable of supplying the farm sector with the right inputs, in proper amounts and at the right time is crucial to the continued increase in the production efficiency witnessed in the past few decades.
- Most farmers spend more money on seed, fertilizer, lime and chemicals than any other inputs, hence it is important to

The Farm Production Sector

- This sector is the core of agribusiness. Its health, level of output, size and efficiency has a direct impact on the financial wellbeing of the input and output sectors of agribusiness.
- In Zambia, the structure of this subsector is usually categorized into small scale- , emergent and commercial farmers.
- Small scale farms dominate this sector, with maize being their primary production commodity. Small scale farms are scattered throughout the country.
- Emergent and commercial farms are predominantly located along the line of rail.
- Commodities produced include: horticulture, floriculture, cash and food crops, livestock, fish and forestry, *inter alia.*

The Output Sector

- This sector is responsible for the transformation of the raw farm outputs (i.e. agricultural commodities) into final consumer products.
- It is the largest of the three sectors in the food system.
- Large corporate organizations are common in the output sector. Many of these have successfully integrated (i.e. both horizontally and vertically) by undertaking several functions in the agriculture value chain. They have especially merged under one management processing and marketing functions. Examples include Zamchick, Zambeef, Zambia Sugar, etc.

Examples of Agribusinesses in Zambia

- Omnia Fertilizer
- Zambeef
- Irritech
- Verino
- Hybrid Poultry
- Panner Seed
- Pick and Pay
- Spar
- Shoprite
- Munali Coffee
- Its Wild
- Parmalat
- Cargill
- Sylva
- Zambia Sugar
- Nitrogen Chemicals

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1.4 Agribusiness as a Value Chain

Africa has a history of selling primary products and buying the value added products expensively. Therefore, value addition is a key objective of most governments. It means transformation of *agriculture, by* shifting emphasis on farming to other subsectors upstream (input supply) and downstream of farming (processing, logistics, wholesaling and retail).

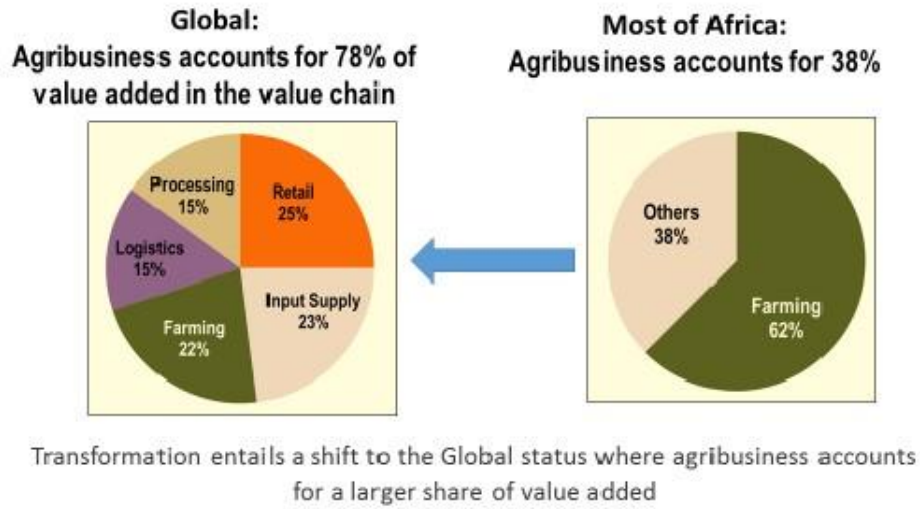

Figure 1: Comparison of Share of Agribusiness in Agriculture Value Chain

1.4.1 Meaning of Value Chain

There are various definitions of "value chain", however the most common definition used in development literature is that of Kaplinsky & Morris (2000). They define the value chain as "*a full range of activities which are required to bring a product/service from conception, through intermediary phases of production, delivery to final consumer and final disposal after use."* A value chain exists when all of the actors work in a way that *value* is generated all along the chain. Value refers to the amount of money that consumers are willing to pay for a good/service. Also a chain usually depicts interrelated activities that are typically organized as sequences of stages.

Given that agribusiness can be categorized into three economically independent sectors (input, farm and output sectors), it can thus also be considered as a value chain as there is a continuum between production and consumption.

The Agricultural Value Chain

There is no universally accepted definition of "agricultural value chain", however, the term refers to a sequence of activities and services that bring an agricultural product from farm to the final consumer. Figure 2 below depicts a generic model of an agricultural value chain. The core activities performed by chain actors in a typical agricultural value chain include: input supply, production, assembling/trading, processing, wholesaling, retailing and consumption. As products progressively move through the successive stages, transactions between chain actors (input suppliers, producers, processors, wholesalers, retailers etc.) take place. Money changes hands, information is exchanged, and value is progressively added (da Silva & de Suza Filho, 2007).

The chain also comprises support services which facilitate the operation of core activities in the value chain and also play an important role in upgrading of the chain. It is important to note that not all services can be provided as embedded services by value chain actors, and so vibrant providers of support services such as non-governmental organisation (NGOs), donor agencies, private and public sector often play a critical role in filling this gap. Support services include: (i)Technological: research and development, extension service and early warning systems e.g. weather forecasts; marketing and business skills (market information, market intelligence, technical and business training, organization and support for collective marketing) and (ii) Financial services (credit, savings, insurance).VCA should therefore, seek to identify opportunities for improved access to services for targeted value chain actors in such a way that the support services providers will be simultaneously strengthened, rather than undermined. When analyzing emerging value chains, or ones predominated by MSMEs and SHPs, particular care should be taken to uncover informal sector service providers that often go unnoticed.

Moreover, value chains operate in a business enabling environment (BEE) that can be local, national, regional or global. The BEE includes norms and customs, laws, regulations, policies, international trade agreements, investment incentives, property rights, and public infrastructure (market place development, roads, Information communication and technology (ICT), energy

supply, water supply and storage etc.).The BEE can facilitate or hinder the performance of the value chain.

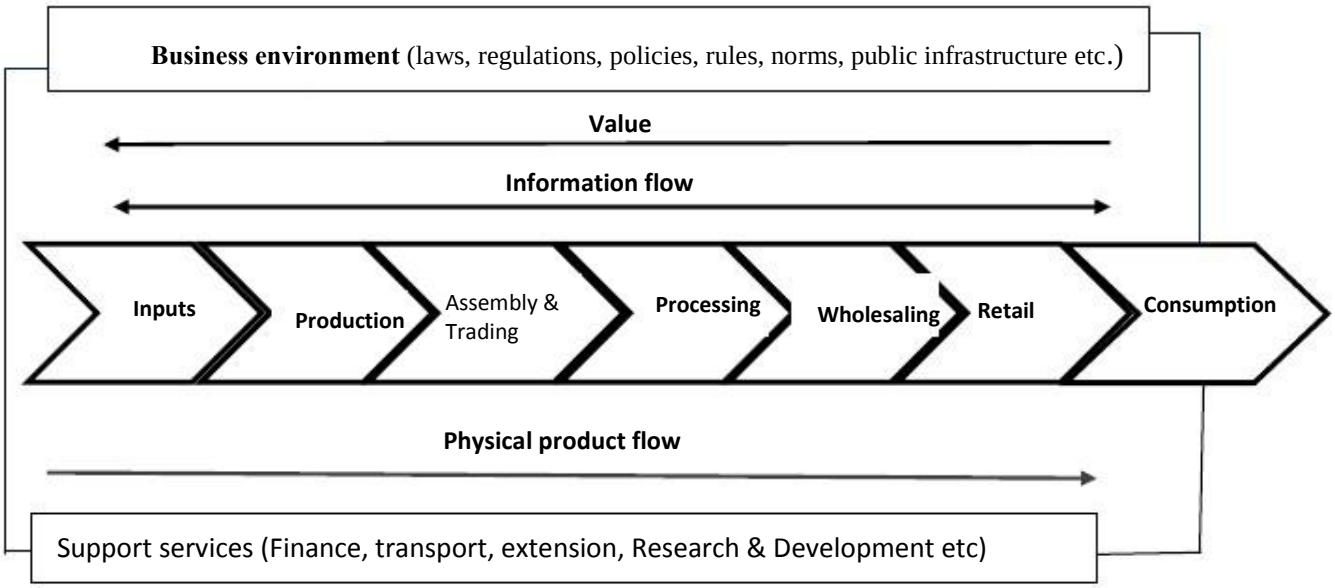

Figure 2: Generic Agriculture Value Chain Model *Source: Adapted from Sebrae, 2000*

1.5 Dimensions of Agribusiness

The following section highlights the different facets of agribusinesses.

(i) Agribusiness structure

The agribusiness structure comprises of the business enabling environment, support services, key actors and their activities (refer to Figure 2 to above).

(ii) Agribusiness as a system

An individual agribusiness is part of a larger system that includes the value chains of upstream suppliers and downstream channels and customers. Linkages exist not only in a firm's value chain, but also between value chains. There are basically two types of linkages in a value chain system that is vertical and horizontal linkages. Vertical linkages refers to relationships between firms at different levels of the value chain and they play an important role of moving a product to the end market. While, horizontal linkages refer to relationships amongst actors (competitors) at a given

stage of the value chain. These linkages can be both formal and informal. An example of horizontal relationships is collective action amongst smallholder farmer groups.

Agribusiness (value chains) exhibit the following systems' attributes: interdependency, propagation, feedback and synergy that are critical to development of agribusinesses that are competitive and sustainable. These attributes are correlated.

Interdependency refers to the fact that activities performed in the chain are interrelated. For instance, a milk processing firm to operate efficiently and profitability depends on a reliable supply of affordable and quality milk from the dairy farmers. On the other hand, the dairy farmers rely on the milk processor for a guarantee and regular market for their milk. Hence the success of each one of these two chain actors is closely linked to the fortunes of the other (Da Silva & de Suza Filho, 2007).

Propagation exists because there is interdependency among chain activities. Actions impacting a particular chain link will have effects that will propagate back and forth throughout the other chain links. If, for instance, cereal consumers require retailers to inform them about the presence of genetically modified organisms (GMO) in their products, then processors and growers will have to adjust their production methods, so as to ensure that this information is readily available. The action in this case, though initiated at the retail level, had its effects transmitted throughout the chain until its initial stages were reached (Da Silva & de Suza Filho, 2007).

Feedback is associated with the prior two system attributes already discussed. As already indicated, actions impacting a chain component will propagate throughout its links. As chain actors adjust to these changes, the propagation principle causes a new round of adjustments, in a process that continuously occurs until some form of equilibrium is reached. As an example, consider the typical cycles observed in some commodity markets. An increase in commodity prices, ultimately induces farmers to raise production. As production rises, supply will exceed demand and cause prices to fall, which will eventually induce farmers to reduce their production, thus starting a new cycle of supply and price adjustments (Da Silva & de Suza Filho, 2007).

Synergy is a system attribute that emphasizes the fact that the "whole is greater than the sum of parts. In agrifood chains, often, opportunities for gains exist that cannot be realized unless all actors work together

for mutual benefit. Consider, for instance, the issue of product traceability. Some markets for internationally traded commodities require that products be fully traced along their chains and necessitates development of common standards for information gathering and record keeping, product labeling, bar coding and other data processing protocols. It is clear that such complex organizational arrangements are only possible with the adhesion of all chain participants. Clearly, a firm's success in developing and sustaining a competitive advantage depends not only on managing its own value chain, but on its ability to manage the value system of which it is a part (Da Silva & de Suza Filho, 2007).

(iii) 1.5.2 Agribusiness firms deal with making economic decisions at micro, meso and macro levels.

At the micro or firm level agribusiness managers need to make decisions regarding what to produce, how to produce, when to produce and for whom given the limited productive resources. Decisions at the meso level mainly focus on the market structure and how to position the firm and its products to cope with competition. Stiff competition affects the attractiveness of a business and is normally seen by the number of firms in a given business, the various types of a given product and the aggressiveness of the promotional campaigns. At the macro level decisions are related to domestic sectoral or macroeconomic policies such as tax rates, interest rates, inflation, unemployment and investment rates and how they affect agribusiness development. At the international level, macro issues focus on international trade agreements and are concerned with issues such as tariff schedules, import quotas, production incentives and intellectual property rights. Currently most countries in Africa are engaged in negotiating and implementation of trade agreements among different members of regional integration blocks such as the Common Market for Eastern and Southern Africa (COMESA) and Southern African Development Community (SADC) or with countries outside the region. Other issues are concerned with international competitiveness such as subsidies and meeting the sanitary, phytosanitary and food safety requirements for export markets

(iv) Agribusinesses focus on end markets (market oriented approach)

End markets are the ultimate consumers of the product. End market buyers are a powerful voice, transmit learning and motivate change. They determine the product characteristics as well as the competitive priorities (price, quality, quantity and timing) that the agribusiness should focus on in

order to become competitive. Clearly, producing something for which there is no demand, will not lead to sustainable increases in income. However, by focusing on what consumers want and are willing to pay for, the greater the agribusiness's chances of being profitable and sustainable.

1.6 Scope of Agribusiness

Scope of Agribusiness refers to the array, length, span, extent, range or the possibility of scale of an agribusiness. In discussing the scope we are also highlighting the importance of the agribusiness sector.

- Our daily requirements of food and fiber products at a desired place, in a required form and time, comes from efficient and hardworking business personnel in the input sector, farm and food production sectors and the output sector. For instance, the fact that food is produced and available, does not mean that everyone will have access to it. Therefore, distribution of food and fiber is as critical as their production;

- Agribusiness combines the diverse commercial enterprises, using heterogeneous combination of labor, materials, capital and technology to add value to products, thereby increasing the net profits;

- Agribusiness provides crucial forward and backward linkages. *Backward linkages* include supply of inputs, credit, production technologies, farm services etc. *Forward linkage* includes storage, processing, transportation and marketing aspects;

- It is a dynamic sector and continuously meets current demands of consumers in domestic and world markets;

- Establishment of agribusinesses enhance community development through strengthening of infrastructural facilities, expansion of credit; raw materials supply agencies, adoption of modern technology in production and marketing of agricultural products;

- Agribusinesses generate employment opportunities and enhances;

- Agribusinesses are an important source of foreign exchange which is earned through the export of certain agricultural products (raw and/or processed);and

- Agribusiness can contribute towards graduating small-scale farmers from subsistence farming to commercial agriculture by promoting market-linked production

1.7 Distinctive Features of Agribusiness

- ***Tremendous variety*** in the kinds of business in the agribusiness sector; e.g. from input suppliers, to basic producers, transporters, brokers, wholesalers, processors, retailers, etc.
- Most agribusinesses, even those that are industrial giants, are likely to be highly ***seasonal in nature.***
- Agribusiness deals with the vagaries of nature (high rainfall, draught, high (low) temperatures, high (low) humidity, frost etc); hence it is ***high risk*** especially for firms in the farm production subsector.
- ***Variability in quantity and quality*** of most agricultural farm products. This is caused by genetic variation, seasonal changes, climatological differences, etc.
- ***Complementarily of products*** – Some agribusinesses produce complementary agricultural raw materials which are used in different sectors within the agriculture industry or other sectors of the economy – e.g., livestock and leather industries get their raw materials from cattle.
- **Competitive Market -** Agribusinesses are small and compete in a relatively free market in which there are many sellers and buyers.

1.8 Zambia Agribusiness Sector: Challenges

Question

What are the main challenges that the agribusiness sector in Zambia is faced with? In answering this question;

a. Indicate generic challenges that the agribusiness sector would be faced with

b. For a particular agribusiness type in Zambia, give an illustration of these challenges.

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