Chapter 2

Concept and Metrics of Agricultural Diversification

ABSTRACT

This chapter presents some comparative analysis on agricultural diversification at the national and individual enterprise levels illustrating that although a country or region may have optimum diversification it may not translate into optimum diversification at the enterprise level to the disadvantage of farmers causing the national diversification to be unsustainable. This finding may strengthen the justification for an expanded model at the enterprise level to include integration of various aspects of production, such as crops, livestock, aquaculture, and soil and livestock feed production. The remaining chapters will identify and describe the various aspects and characteristics of the farm model from a practical perspective of an individual farm enterprise utilizing the model and demonstrating how to optimize farm waste to approach a zero waste scenario so that it can be instructive for various levels of uptake, including the individual farm enterprise level.

INTRODUCTION

The issues presented in Chapter 1 show that despite all the policy solutions and farming models introduced over the past 5 decades, achieving agricultural diversification to meet local food demand and food security have essentially failed. While the solutions are formulated and implemented, the conditions change with the new dimension of climate change that has exacerbated the
effects of the factors influencing farming. The current circumstances are in a state of complexity with no clear strategic direction, except latching on to the “mantra” of adaption to climate change to which all the past issues in agricultural diversification are now pinned. One thing that is clear is the major source of funds coming from the climate change initiatives on adaptation and mitigation is followed by policy and decision makers at the levels of governance of the agriculture sectors in the region.

It is here proposed that although there is complexity, the problem of food supply can be simplified and viewed from the perspective of the individual farming enterprise. Focusing on the success of individual farms will cumulatively and positively impact regional or national production and diversification but not necessarily the opposite, i.e. the regional or national would not necessarily result in individual success. There is evidence to be presented that indicate farmers enter and exit the sector with high turnover, except for older farmers who continue mainly at a subsistence level.

This chapter now turns to an analysis of agricultural diversification at the national level for the small island nation of St. Kitts, also considered as a small island developing state.

NATIONAL AGRICULTURAL DIVERSIFICATION IN ST. KITTS

This section gives an insight of the general economic environment and the role that agriculture plays in the economy. First is the GDP trend from 1986 to 2003. Second is the absolute contribution of the agricultural sector in general to the Gross National Product (GDP) of St. Kitts. Third, and finally, is the relative contribution of agriculture to GDP, expressed as a percentage of Agriculture to GDP. These visual impressions of the macro-environment form the backdrop for presenting the index of agricultural diversification in St. Kitts. This chapter then examines the factors that may influence agricultural diversification at the national level in St. Kitts. Please note that the data are provided by the St. Kitts Planning Unit – Statistics for the years 1986-2003. The data to compute the diversification index go back only to 1986, and therefore the data selected by this research for the other variables, although available for earlier years, are limited to those years only to facilitate analysis. The first set of objectives relates to the macro-economic factors influencing agricultural diversification of the island, St. Kitts, generally.
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