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Diploma Thesis Abstract

Analysis of Food Insecurity in Haiti

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ABSTRACT

The purpose of this thesis is to evaluate the state of food insecurity in a developing country represented by the Republic of Haiti, provide recommendations in terms of food security and reveal to what extent has the rice price crisis of 2008 and the earthquake of 2010 influenced the state of food security in the country. Partial objective of this thesis is to perform projections towards the year 2050 in terms of total population and food demand.

The main terms linked to food security and country profile of Haiti are introduced in the literature overview. For an assessment of food insecurity in the country, an analysis of the four dimensional concept of Food and Agriculture Organization of United Nations (FAO) was carried out in order to derive the current state and recommendations for the country in terms of food security. Partial objective of the thesis provides simulation of four different scenarios of population growth and food demand based on three fertility assumptions by United Nations and one calculated assumption which is based on historical population growth. Above mentioned projections should provide an idea of expected development of total population and food demand and provides the baseline data for potential further research in terms of food supply.

By applying the SWOT analysis at the end of the thesis it was detected that weaknesses significantly outreach strengths in terms of food security in Haiti. Most of the country is facing to stage II- Food Stress, while 13 of its regions are considered as stage III –Food Crisis. Moreover, it was detected that an earthquake in 2010 caused migration of population from affected area to rural areas, which caused a sudden increase in the number of people living in the same household. This population shift resulted in a deficit of basic alimentary goods, price increase for basic foodstuffs and the stock of seeds being used for human consumption. Although the food insecurity nowadays affects approximately 38% of the Haitian population, this proportion fluctuates with regards to repetitive natural disasters, hurricane or drought seasons and due to massive deforestation, also mudslides. Due to such factors, agricultural production fluctuates as well and therefore there currently exists 80% dependency on rice imports. Although Haiti currently does not generate enough domestic production, many international projects are operating in the country with the aim to introduce new farming techniques that should double Haitian farmers' yields and ensure at least a minimum stability.

Key words: Haiti, Malnutrition, Poverty, Poverty, Food Demand, Nutrition, Natural Disasters, Food and Agriculture Organization, World Bank, Power Function, Analysis, Hunger Index

2. Objectives and Methodology

2.1. Objectives

Haiti has one of the highest levels of food insecurity in the world and more than half of its population is chronically undernourished. Therefore, the main objective of this thesis is to analyze individual indicators of food security in the country in order to reveal the reasons behind its unstable development, current trends and also to derive recommendations for future.

The practical part of the thesis provides answers to two following research questions:

Q1: What is the development of food security in Haiti (using time series 1990-2014) and to what extent has influenced the food security in the country

a) Global Rice Price Crisis of 2008

b) Earthquake that struck Haiti in 2010

Q2: What are the projections of population growth and food demand in Haiti towards 2050? Comparison of food demand and population growth with regards to three scenarios of fertility by Food and Agriculture Organization and the author's scenario obtained by statistical calculations

2.2 Methodology

Concerning the first research question a detailed analysis of four dimensions of food security following FAO concept should reveal the reasons behind each indicator's development over time, assess the current trends, expected future development and propose recommendations. Moreover, the calculations of protein content in three most common Haitian meals are provided and compared to actual daily protein supply of Haitian population in grams per capita.

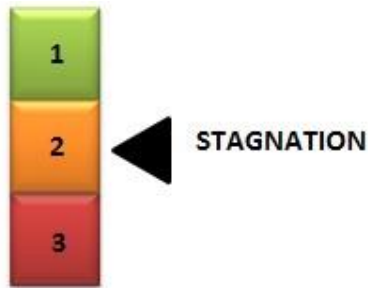
Regarding the second research question projections of total population and food demand change towards year 2050 are conducted on a basis of statistical calculations (performing various combinations of functions of power) and compared to United Nation's 3 fertility scenarios.

The thesis concludes with a SWOT analysis assessing already discussed areas in terms of food security in Haiti and provides recommendations for improving current state of food security in the country.

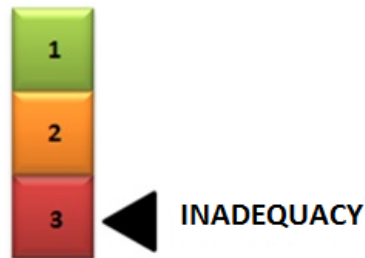
3. SWOT analysis of Food Security in Haiti and recommendations

4 food security dimensions in Haiti were assessed as follows:

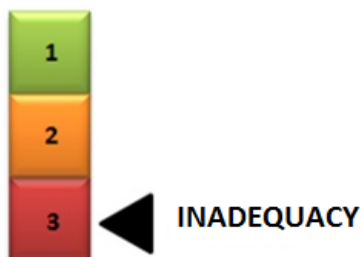
1) Availability dimension



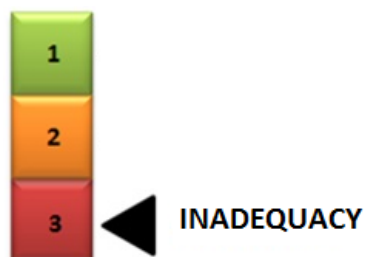
2) Access dimension



3) Stability dimension



4) Utilization dimension



SWOT:

Strengths: History of strong competitive advantage in terms of commodity exports (coffee, mangoes), After long time period of exporting mainly apparel, Haitian beer is currently (2014) being successfully exported to Dominican Republic, High nutritional quality of traditional Haitian seeds (although limited amount only), Possibility of two harvests in a calendar year

Weaknesses: The poorest country in the Western Hemisphere (55 percent of the population living below the poverty line of \$1.25 per day), Location in the middle of hurricane belt, Recurring flooding, earthquakes and periodic droughts, Inadequate supplies of clean, drinkable water, Spreading of diseases associated with polluted water (cholera outbreak 2010-?), Underdeveloped industrial sector and

services (70 percent of population depends on small-scale subsistence farming) etc.

Opportunities: High potential for development of agriculture (international projects, crop intensification, EU subsidies etc.), Greater cooperation with Dominican Republic, as the closest importer, in terms of foodstuffs import

Threats: Increased occurrence of natural disasters, Increased occurrence of floods and droughts, Deforestation, extreme soil erosion resulting in the loss of arable land, More landless farmers due to Foreign Direct Investments which aim to support building of large industrial parks (Caracol) which are built on fertile arable land that belongs to family farmers, High risk of public riots and overall political instability with coming elections at the end of 2015

4. Conclusion

While in poor economies, there exist a general shortage of food for the masses of the population manifested by malnutrition, starvation and related diseases, developed countries, by contrast, are characterized by an excess of food and higher level of obesity

Although the food insecurity in Haiti nowadays affects approximately 38% of the Haitian population, this proportion fluctuates with regards to repetitive natural disasters, hurricane or drought seasons and due to massive deforestation, also mudslides. Due to such factors, agricultural production fluctuates as well and therefore there currently exists 80% dependency on rice imports. Although Haiti currently does not generate enough domestic production, many international projects are operating in the country with the aim to introduce new farming techniques that should double Haitian farmers' yields and ensure at least a minimum stability. On the other hand, after assessing 15 food security indicators applied on Haiti, positive development was detected in terms of decreasing the proportion of undernourished population and food inadequacy by 10% since 1990, increasing the protein supply to a normal value that is sufficient for a woman (46g/per capita/daily) and most importantly, decreasing the proportion of rice import dependency at the detriment of increased domestic production of rice. To conclude, it is expected that Haiti will be exposed to natural disasters, hurricane seasons etc., on the other hand, with coming international help and projects, it is also expected that the in the course of time, Haiti will ensure itself at least a minimum stability in terms of food self-sufficiency.

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