Food security remains a big challenge globally and more so, for undeveloped countries. While these countries have to face the system of globalization with more and more rigorous rules, their population has to get enough food to assure their livelihood. Haiti is one of the poorest countries in the world and has the challenge to feed approximately 10 million people. The World Bank states that between 2.5 and 3.3 million Haitians are estimated to be food insecure according to World Food Program (WFP).

There exist a number of evaluation models for assessing food security on the one hand and the appropriateness of the results for policy makers are of concern on the other. In this regard, this study used a number of models to assess the Food Security situation in Haiti to evaluate the appropriateness of the result for decision-makers. The main objective was (i) to determine the real Food Security situation in Haiti and (ii) to determine opportunities for agribusiness development through an import substitution initiative.

The following models were used for estimation:

1. The food gaps based on status quo gap and nutrition gap as two consumption criteria
2. The relation between the international trade and food security using
   a. the Cereal Supply Indicator (SI)
   b. the Food Import Capacity Indicator (ICI)
3. The Import dependency

The results of the models were compared based on their weaknesses, in term of parameters neglected, for a better accuracy of the outcome and effective intervention. The major findings of the study are:

1. The most appropriate model for assessment of the food security is the food gap model.
2. The most appropriate model for assessing food security based on international trade is the food import capacity indicator (ICI)
3. The relative well being of the Haitian population has been improving but less than the globally accepted standard.
4. The food gap: The status quo gap tends to disappear for the last year evaluated.
5. Based on the Food Security situation, the study also found investment possibilities which can be used to remedy Haiti’s food security problem.
6. Based on the objectives of the study, the best areas for agribusiness development in Haiti at this time are rice and poultry meat.

Key words: Food security, Food gaps, Cereal Supply Indicator, Food Import Capacity, Import Dependency