1. Introduction

All definitions of Agricultural sustainability agree on that it has economic, environmental and social aspects while the economic aspect is examined taking into consideration viability in strictly microeconomic terms. Energy input is usually analyzed into Labor, Machinery, Fuel, Nitrogen, Phosphorus, Potassium, Seeds, Irrigation, Herbicides, Insecticides, Electricity and Transport. However, in most countries under food stress labor input is high while agricultural production has low contribution from the rest of the energy input variables which impacts productivity in a negative way. Since most of these countries have negative trade balances and foreign exchange shortages, the agricultural policy is designed to revalue cultivated land by the obligatory inclusion, as an integrated component, of additional cost where biomass/biofuel cultivation takes place. The target of this redefinition is to (a) cover the cost of the rest of the energy input variables by a crop which reduces imported fuel and allows for the foreign exchange earned to be transferred to the import of these missing quantities while retaining the same level of imports (b) to lower in a sustainably stable way crop production and (c) to insulate crop production from the local and local fluctuations of energy cost. The pros and cons in terms of general sustainability are examined.

2. Materials & Methods

The proposed is to substitute part of Oil imports by Government subsidized locally produced biofuel. The import cost saved from this substitution will be transferred to the import account for agricultural E IMPORT which will lead to crop intensification and/or increase of cultivated areas under sustainability restrictions[26], [20], [23], [31], [32], [33], [34], [35], [36]. This will have the use of the trade balance initially invariant and as, biofuel production is stabilized at a level where the intensification/cultivated area increase eradicates Agricultural Imports, the trade balance will be reduced.

In essence, the Central Government borrows from the Central Bank a sum of money $50 in LCU which is enough to start off the agricultural production of biofuel land and its processing into a quantity Q of biofuels / fuel on Government owned land after a period of 18 months. This quantity Q should be sufficient to finance the crop intensification and/or increase of cultivated areas into Government owned land under sustainability restrictions to the degree that, after an additional 18 month period, the targeted agricultural imports Q AGRICULTURAL IMPORTS will be replaced with local production leading to Agricultural Self-Sufficiency. Part of $50 will be converted into foreign exchange, $50 EXCHANGE, which will cause a "jump" MD = $50 EXCHANGE in the negative trade balance X-M and will probably be carried as additional external public debt. The annual production of Q will entail the following costs:

- The energy input components of Agricultural Production, E IMPORT which will be repaired by LEOCAL.
- The energy inputs of processing into biofuel / fuel E PROCESSING IMPORT and E PROCESSING LOCAL.
- A Q amortization comprised of $50 EXCHANGE AMORT and SO LOCAL AMORT. Therefore Q can be expressed as Q = $50 EXCHANGE + SO LOCAL AMORT where the Government will sell at a price equal or lower to Q the lowest price it can charge will be $50 EXCHANGE so as to maximize the M reduction and reduce the X - M negative balance. At the same time oil imports $50 EXCHANGE MD will be reduced to POLIEXCHANGE MD and the import cost of Agricultural Products, PM PROD EXCHANGE Q AGRICULTURAL IMPORTS will be zeroed.

Therefore

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\Delta M = P_{OL EXCHANGE} + P_{MD PROD EXCHANGE} - Q_{AGRICULTURAL IMPORTS} \quad Q_{EXCHANGE} > 0
\]

3. Conclusions

A new system, which promotes Agricultural Self-Sufficiency by eliminating Agricultural Imports and at the same time decreases the trade deficit by using biofuel production as an intermediating mechanism, which decreases, was developed at first approximation. A partial application on African LDCs demonstrated that there is an objective for this system and further development and research is warranted.

References