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“Global food security and food safety:  
The role of universities”

## Combating Climate Change and Ensuring Food Security(new Phase AGRICULTURE)

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### Abstract

For a large number of developing countries, agriculture remains the single most important sector. Climate change has the potential to damage irreversibly the natural resource base on which agriculture depends, with grave consequences for food security. Environmentally friendly agriculture(NEW PHASE) is that type in which the farmers use environmentally friendly methods on environmentally friendly crops to guarantee maximum output. Practically, some actions are; the focus on Biodiversity which is an important regulator of agro-ecosystem functions, not only in the strictly biological sense of impact on production, but also in satisfying a variety of needs of the farmer and society at large. Two distinct species, mutually exhibiting some degree of complementary, are always the best starting point. so we plant crops that are complementary together. for example maize and beans. In some cases, the positioning is altered, for e.g; change in inter-row distance for maize was recommended as a way to increase the yields of under story soybean. For the ecological dynamics of complex agro-ecosystems, natural or human influenced, to thrive, certain parameters must be in place. These are density, diversity, disarray, and duration. When a plant grows very big, we have to trim or prune it, for light. There are times when one or more of the outputs from a multi-output system are not harvested or only a portion is taken. This is the non-harvest option. How weeds are naturally controlled is first and foremost determined by relationships of weeds and the primary species. we equally made use for genetically modified seed to assure high output. The aspect of trees come in to the system. some tree species like mango, oranges, plums.. are planted among the crop. they provide fruits, food, money ; fire wood, improve on soil fertility through leaves, and maintain soil water content in dry places.. in some very dry places, the fig tree was planted on the hill top and cultivation was carried on in the low lands. very efficient. New phase agriculture will thus help to improve on the carbon stock in 2 ways; reduced pressure on the forest by local population and the planting for environmentally friendly products(fruits) in the agricultural process.

**Keywords:** Agricultural transformation, agro-ecosystems, climate change, Green house gases, natural resources, new phase agriculture, sustainable development