

## Vinyl 2010 Essay Competition Submission Template

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### **Summary:**

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More than 10 million Kenyans are at the risk of starvation creating a national disaster in the year 2009. There is a raging debate as to whether the use of genetically modified organisms (GMOs) in agriculture can improve on the situation. This essay analyses the current food crises and use of GMOs in Kenya, identifies causative factors and suggests solutions to the food insecurity.

### **Essay:**

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#### **Introduction**

There were 10 million Kenyans at the risk of starvation at the beginning of the year 2009 including 1.5 million children are under the school feeding program. This food crisis is attributed to failing rains over the last year and the displacement of farmers during the post election in December 2007. The food crisis is worsened by cultural effects on feeding patterns, high costs of fertilizers and small scale farming practices. At present the hunger situation in the country has been declared a national disaster with the president appealing for food aid.

#### **Genetically Modified Organisms (GMOs) in Kenya**

The Biosafety Bill 2008 which is soon to be tabled in parliament marks an important landmark in use of GMOs in the country. The Bill has elicited mixed reactions being supported as an end to the food crisis. On the other hand farmers and non-governmental organizations argue that the GMOs are unhealthy, involve high technologies that are inaccessible and contribute to environmental degradation. The Biosafety Bill provides for the formation of a National Biosafety Authority (NBA) that will ensure that research on genetically modified products, their importation and commercialization are carried out in a safe manner.

Kenya ratified the Cartagena Protocol on Biosafety in 2003 which regulates trans-boundary movement of GMOs and minimizing any perceived risks to human health and environment. In line with the protocol, the government passed the National Biotechnology and Biosafety Policy in 2006 which paved way for the formulation of Biosafety Bill to implement the policy. Although there is no law on biotechnology in the country, Kenya Agricultural Research Institute (KARI), Kenya Seed Company (KSC) and local universities have been spearheading research on GMO since 1998. These organizations have been carrying out research on transgenic maize, sweet potato, cassava, cotton and rinderpest vaccine.

According to experts, the bill deals with applications for the contained use, field trials, import, export and placement of GMOs on the market but falls short in addressing the key issue of labeling especially after commercialization. According to International Environmental Law Research Centre's (IELRC) Prof Patricia Kameri, the bill makes grave omission including failure to cover food aid despite the fact that Kenya receives food aid from countries producing GM crops.

## **Discussion**

The problem of food security in Kenya is multifactorial from running small cost ineffective farms to changing weather patterns due to global warming. The total available land in Kenya is 582,650 km<sup>2</sup> Only 7% of the land is capable of supporting agriculture, with only 1% devoted to permanent crop production. Nearly 37% of Kenya's land is used for pasture land. There are 52 tribes in Kenya each with a staple meal. There are cultural rules with reference to feeding with certain foods reserved for men. For example in the "Luhya" communities women are allowed to only eat some parts of the chicken with no egg consumption. The level of illiteracy is high and most of the farmers practice traditional farming techniques. The universities are at present forming collaborations with universities abroad to encourage research within Kenya, The Jomo Kenyatta university leads the collaborations with Japan and has developed better banana species.

While it remains difficult to ignore the great benefits that can be accrued from introduction and utilization of GMOs in agriculture in Kenya, there remains cheaper measures that can be implemented to increase food production. The government is currently importing maize at a cost of Kenya shillings 3700 while purchasing locally at shillings 2300. This has led to hoarding of produce by farmers hence worsening the food crisis. The farmers overly on the use of fertilizers for crop production hence accelerating soil exhaustion. It is a moment for the government to encourage the farmers to embrace organic farming utilizing easily obtainable and sustainable resources.

The lack of farmer insurance and compensation for crop failure remains a big challenge. The government should through the agricultural finance corporation extend insurance services that can go a long way to cushion the farmers and reduce the food insecurity. The brokers acting as middle men purchase the produce at low prices and supply them to the consumers at high prices. Elimination of the increased cost arising through the use of middle men in supply chain of food is to improve the transport and delivery system through the national cereals and produce board. Moreover encouraging farmers to form community groups can improve their bargaining power. Such groups are easy to train, offer credit and can work to process their feeds in order to increase value of the final product.

There is need to improve the legislation especially with reference to standardization of fertilizers and animal feeds which are prone to be tampered with by the manufacturers in an attempt to minimize the costs.

The GMOs are the future for Kenya. To be able to be well integrated the government can increase research in this area to assess feasibility and sustainability.

## **Conclusion**

The prospect of GMOs seems a quick effective method of tackling the food crisis in the country at the moment. However I feel that the government has not done enough to improve what is already there at the moment. The way to go at the moment is to empower framers, reduce cost of production and improve marketing through manufacturing. With the respect to GMOs there is room for research to check for use in the future.

## References

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5. The Thika Declaration on GMOs