THE ROLE OF PLANT VARIETY PROTECTION IN PROMOTING DEVELOPMENT OF CLIMATE-SMART CROP VARIETIES IN KENYA

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Introduction

The Kenyan economy is largely dependent on agriculture for raw materials, food security, employment and general livelihoods. Agriculture contributes 33% of the gross domestic product (GDP) and constitutes 60% of the export earnings. The sector ensures a constant food supply and food and nutrition security for the population.

The world's climate is changing, and Kenya is not spared of this global trend. Climate change has resulted to increased temperatures and changes in seasonal trends and patterns. In recent years, Kenya has witnessed extended dry periods and rainfall outside the normal seasons. Floods have also been witnessed. With the changing climatic conditions, the country has witnessed emergence and spread of new pests and diseases such as the Maize Lethal Necrosis (MLN), Fall Army Worm (FAW) among others. All these factors have resulted in threats to food security. It is therefore very important for breeders to develop varieties that are resilient to harsh agro-ecological conditions.

Implementation of plant variety protection in Kenya has encouraged breeders to develop diverse plant varieties. Breeders have embarked on development of drought tolerant varieties of maize, sweetpotato, cassava, sorghum, pigeon peas, amaranth and rangeland grasses among others. Implementation of a plant variety protection system has resulted in close to seven-fold increase in the number of drought tolerant varieties released for commercialization. In the last 3 years alone, a total of **41** climate-smart varieties were released. There are also efforts to release pest and disease tolerant varieties to counter emerging pests as a result of climate change. Sixteen (16) varieties tolerant to Maize Lethal Necrosis (MLN) have been released, while varieties of Fall Army Worm (FAW) tolerant maize are under evaluation.

As a result of climate change, breeders have responded by developing varieties of new types of species. In the last ten years, new varieties of Amaranth and rangeland grasses have been developed. The rangeland grasses will particularly have an impact in livestock production in the drier parts of the country.

There is considerable development of climate resilient varieties following introduction of plant variety protection in Kenya. This has come as a result of: breeders having assurance on return of investment following development of new varieties; enhanced capacity for testing of new varieties through cooperation with UPOV and UPOV members; and, collaboration and cooperation between the breeders and the testing authority on variety testing.