

Engineering Education for Agricultural and Rural Development in Africa

B. A. Adewumi

Abstract

Agricultural Engineering has transformed agricultural practices from subsistence level to medium and large-scale production via mechanisation in the developed nations. This has reduced the labour force requirements in agriculture; increased production levels and efficiency, product shelf life and product quality; and resulted into industrialisation. In the US, for example, less than 5% of the population is engaged in agricultural production and provides sufficient for national consumption and surplus for export. Whereas, up to 70% of the African population is involved in agricultural production and there is no food security. Agricultural engineering is not well perceived in African countries. It is mostly perceived as tractorisation. Whereas, agricultural engineering practice include options such as farm power and machinery, storage and food processing, soil and water conservation, rural electrification, structures and environment, and ergonomics. Governments in most developed countries accepted agricultural engineering as a viable option for food sufficiency, and formulated and implemented favourable policies to support the practice of agricultural engineering. In Africa, agricultural engineers are often marginalised. The paper therefore addresses issues that are essential for a better orientation of agricultural engineering training and education, and subsequently influence a better policy on agricultural engineering education in Africa.