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Agricultural Mechanization for Transformation

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Abstract : Kenya Vision 2030 is the country's programme for transformation covering the period 2008 to 2030. Its objective is to help transform Kenya into a newly industrializing, middle-income, exceeding US$10000, country providing a high quality of life to all its citizens by 2030, in a clean and secure environment. Increased agricultural and production and productivity is crucial for the realization of Vision 2030. Mechanization of agriculture in order to achieve greater yields is the only way to achieve these objectives. There are contending groups and views on the strategy for agricultural mechanization. The first group are those who oppose the widespread adoption of advanced technologies (mostly internal combustion engines and tractors) in agricultural mechanization as entirely inappropriate in most situations in developing countries. This group argues that mechanically powered -agricultural mechanization often leads to displacement of labour and hence increased unemployment, and this results in a host of other socio-economic problems, amongst them, rural-urban migration, inequitable distribution of wealth and in many cases an increase in absolute poverty, balance of payments due to the need to import machinery, fuel and sometimes technical assistance to manage them. The second group comprises of those who view the use of the improved hand tools and animal powered technology as transitional step between the most rudimentary step in technological development (characterized by entire reliance on human muscle power) and the advanced technologies (characterized 'by reliance on tractors and other machinery). The third group comprises those who regard these intermediate technologies (ie. improved hand tools and draught animal technology in agriculture) as a ‘delaying’ tactic and they advocate the use of mechanical technologies as-the most appropriate. This group argues that alternatives to the mechanical technologies do not just exist as a practical matter, or, if they are available, they are inefficient and they cannot be compared to the mechanical technologies in terms of economics and productivity. The fourth group advocates a compromise between groups two and third above. This group views the improved hand tools and draught animal technology as more of an 18th century technology and the modem tractor and combine harvester as too advanced for developing countries. This group has been busy designing an ‘intermediate’, ‘appropriate’, ‘mini’, ‘micro’ tractor for use by farmers in developing countries. This paper analyses and concludes on the different agricultural mechanization strategies available to Kenya and other third world countries

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