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Sustainable Crop Mechanization among Small Scale Rural Farmers in Nigeria: The Hurdles

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Abstract : The daunting challenge that the 'man with the hoe' is going to face in the coming decades will be complex and interwoven. With global population already above 7 billion people, it has been estimated that food (crop) production must more than double by 2050 to meet up with the world's food requirements. Nigeria population is also expected to reach over 240 million people by 2050, at the current annual population growth of 2.61 per cent. The country's farming population is estimated at over 65 per cent, but the country still depends on food importation to complement production. The small scale farmer, who depends on simple hand tools: hoes and cutlasses, remains the centre of agricultural production, accounting for 90 per cent of the total agricultural output and 80 per cent of the market flow. While the hoe may have been a tool for sustainable development at a time in human history, this role has been smothered by population growth, which has brought too many mouths to be fed (over 170 million), as well as many industries to fuel with raw materials. It may then be argued that the hoe is unfortunately not a tool for the coming challenges and that agricultural mechanization should be the focus. However, agriculture as an enterprise is a 'complete wheel' which does not work when broken, particularly, in respect to mechanization. Generally, mechanization will prompt increase production, where land is readily available; increase production, will require post-harvest handling mechanisms, crop processing and subsequent storage. An important aspect of this is readily available and favourable markets for such produce; fuel by good agricultural policies. A break in this wheel will lead to the process of mechanization crashing back to subsistence production, and probably reversal to the hoe. The focus of any agricultural policy should be to chart a course for sustainable mechanization that is environmentally friendly, that may ameliorate Nigeria's food and raw material gaps. This is the focal point of this article.

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