

## Introduction: Making Technology Work for the Poor in Botswana

**H.K. Siphambe**

Department of Economics  
University of Botswana  
email: siphambe@mopipi.ub.bw

This special issue of *Pula* on *Making Technology Work for the Poor in Botswana* was inspired by a seminar jointly organised by United Nations Development Programme (UNDP) and the Department of Economics of the University of Botswana in October 2001 to commemorate the International Day for Eradication of Poverty (IDEP). The theme of the seminar - "Making Technology Work for the Poor" - was in line with the Human development Report 2001 - "Making New Technologies Work for Human Development".

That poverty and technology are linked can best be seen in the widespread criticism generated by the Malthusian view that poverty was an unfortunate fact of life about which nothing could be done. David Ricardo, for example, argued that technology provided humanity the hope of reducing poverty. Indeed, technology remains a vital tool for growth and development, raising productivity and enhancing incomes, especially in developing countries where the majority of the population is still to come by modern technology. As evidenced in the industrial and green revolutions, new technology results in healthier lives, greater social freedoms, increased knowledge and more productive livelihoods (UNDP 2001). The new inventions in the medical world and increased interconnectedness through new information and communication technology provide potential for poverty reduction. However, as much as technology provides hopes for improving the lives of the poor, so too does it pose a significant threat to survival, creating unemployment for those replaced by technology. This is particularly worrisome since modern technology is mostly created in response to market pressures, and not the needs of the poor. Technology's role in poverty reduction cannot therefore be automatic. It requires deliberate efforts on the part of policy makers and development practitioners, academics and other civil society institutions and, above all, resources to make technology work for poverty reduction.

The papers in this volume look at the various aspects of the relationship between technology and poverty as well as identify some constraints of the small micro enterprise in poverty reduction; and the constraints to having access to technology by the poor. The first ten articles discuss issues, policies, constraints and solutions to problems pertaining to technology and poverty.

In a critical overview of the impact of economic poverty research on agency in Africa, Swiatkowski argues that such research often endorses conventional assumptions that compound the marginality of Africa and Africans, and plays into the hands of the very structures of inequality that generate and maintain poverty. Siphambe's article addresses various dimensions of poverty in Botswana and assesses past efforts at poverty alleviation. The paper argues that lessons learnt from the past programmes are useful for designing better future programmes towards poverty reduction. It concludes that even though successful, poverty reduction efforts in Botswana have to some extent created a dependency syndrome.

On his part, Narayana provides a theoretical link between technology and poverty reduction in general, and argues that technology is largely created in response to market pressures and not to meet the needs of the poor. As a result, research neglects opportunities to develop technology for poor people, despite the need for building their technological capabilities. He recommends policy formulation that takes advantage of poverty alleviation technologies in developing countries, and provides clear direction to their needs.

Mogotsi draws attention to education and technology for the poor in order to enable them to succeed in life. In particular, basic technologies such as electricity and telephone are most useful if affordable, and policies must be designed to ensure this. Taking stock of Botswana's technology acquisition, Sebusang, on his part, argues that judged on a global scale, Botswana does not seem to have achieved a great deal. However, Botswana possesses the requisite infrastructure to make technology work, especially among the rural poor. Sebusang therefore advocates massive investment in science and technology training, and in research and development.

Kapunda dwells on economic diversification and poverty eradication in Botswana, and 'notes that the country is far from realising its goal in this regard, as spelt out in Vision 2016. Mukras takes the argument further with a comparative account, drawing on the experiences of Kenya, Zimbabwe and Mauritius to examine the prevalence of poverty in Botswana despite impressive economic growth. To mitigate poverty, he recommends a strategy based on strengthening the small and medium enterprises (SMEs). Sentsho suggests ways by which Botswana may achieve the industrial development envisaged in the economic linkage model towards sustainable employment and poverty reduction. Acquah, on his part, links poverty reduction to productivity in the agricultural sector in Botswana, and discusses how the farming systems approach (FSA) can successfully contribute to the generation and dissemination of appropriate agricultural technologies. Finally, Rathedi is concerned by the fact that poverty levels remain high despite major efforts by both national governments and international financial institutions. He argues that poverty reduction lies in the nature of the growth process itself, as determined by the set of economic policies that are being pursued by the governments to justify the actions targeted towards the poor.

The articles by Thapelo and Ntsabane, although not initially presented at the seminar which resulted in this special collection, point to relevant areas of policy and practice that give context and quality to the more general considerations that come through in the other papers. Hence, using the case of the San, Thapelo discusses how economic growth in Botswana has been achieved by the elite few to the detriment of the majority, and in certain cases, at the risk of the citizenship of some marginal communities. Through Ntsabane's paper on the other hand, we are informed of how Botswana struggled against poverty during the colonial period by serving as a labour reserve for South African mines. In all, we hope that this special collection raises enough issues to bring the technology-poverty nexus to the centre of academic concern and policy-making.

### Notes

<sup>1</sup> We assume here an exchange rate of US\$=6 Pula.

### References

- GOB (1997) *Long Term Vision for Botswana: Towards Prosperity for All*. Presidential Task Group for a Long Term Vision for Botswana, Gaborone.
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