

# When Science Becomes Relevant: Empowerment and Social Change through Dairy Science in Rural Botswana

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## **ABSTRACT**

*This chapter explores the use of indigenous knowledge for empowerment purposes. The White Angels Yoghurt and Dairy business in Molepolole, a wholly women owned business relied on indigenous knowledge of science with no formal scientific school background. The owners of this business have low education; they stay in a rural area and are poor. Their efforts are noteworthy as a symbol of women's empowerment that has relied on indigenous knowledge of milk pasteurisation and sweetening, a cultural tradition that Botswana have practiced for years. Their business has also demonstrated that combining indigenous knowledge with the current scientific and technological know-how can sustain and yield more gains for the business. Empowerment here can thus be defined as the ability to combine local/indigenous resources and current scientific knowledge and technologies to propel success and more gains from an empowerment project.*

## **INTRODUCTION**

The contribution of women in a country's economy has long been recognised as very critical. This contribution comes in many forms, political participation, including standing for political office, occupying positions of power, and sometimes even as simple a matter as making sure that the girl child has access to basic education. During the Indian elections in 2014, the Bharatiya Janata Party (BJP) ran media adverts with the caption 'Let's empower women' (The Times of India, Chennai, Friday, April 18, 2014). This empowerment according to the advertisement was going to include such areas as education, skills development and greater participation in decision making. Whilst this may have been a catch phrase aimed at encouraging the participation of women in voting, it nevertheless resonated with the current thinking of making sure that women were empowered.

Because of these promises that are political, coupled with agendas at the international levels, governments of the day have an imperative to see to it that issues that affect women and other marginalised groups such as youth are not only attended to but are given undivided attention with departments under line ministries that are dedicated to addressing the issues that matter to such groups. In the case of Botswana, it is the Gender Affairs Department (GAD) under the Ministry of Labour and Home Affairs (MLHA). This thinking is in line with views held elsewhere. For example, Taborga (2009, p. 27) argues that part of the Millennium Development Goals (MDGs) was a focus on gender equality and that to achieve this, "transformative policy changes" would be required because development strategies are not gender neutral.

Consequently, this chapter presents an empowerment story of women who initiated White Angels Yoghurt and Dairy business as an economic empowerment project. The composition of the owners of this business reveals that they are of low education backgrounds, stay in a rural area, of varied age and have low to no scientific background. However, despite these characteristics, especially, their low education and science background, they embarked on a business that called for their science knowledge and skills. Science in the context of this paper assumes the Wikipedia definition of "a body of knowledge itself, of the type that can be rationally explained and reliably applied" ([en.wikipedia.org/wiki/Science](http://en.wikipedia.org/wiki/Science)). This definition fits the work because the processes involved in both Yoghurt and sour milk product are based on science application. Indeed, the nature of the business, dairy or yoghurt production has in-built science principles. These principles include though not limited to the following:

1. Milk pasteurization,
2. Milk stabilization,
3. Sweetening, and
4. Refrigeration.

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