REVIVAL OF INDIGENOUS FOOD SECURITY STRATEGIES AT THE VILLAGE LEVEL: THE HUMAN FACTOR IMPLICATIONS

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Abstract

This article reports findings of an evaluation of the Zunde raMambo practice as a survival strategy in selected rural districts in Zimbabwe. The assumption made when the Zunde was being revived was that its revival would go a long way in minimizing food stress in some rural areas.

The revival of the Zunde raMambo practice was started in 1996 by members of the Chief's Council of Zimbabwe, in collaboration with the Nutrition Unit of the Ministry of Health and Child Welfare. The main objective was to revive the Zunde as a sustainable community project, in line with what was once a known Shona traditional practice. In attempting to revive this traditional practice, there was a need to assess variables such as the nature of existing social and economic structures, leadership, and the availability of resources such as land and agricultural inputs and implements. The article also reflects on policy issues surrounding rural development and survival strategies used by rural people. The article also suggests that the human factor approach offers the best way to the understanding of peoples' needs, problems and how problems can be tackled.

Data used in this article was collected between November and December 1999.

INTRODUCTION

In 1996, the Nutrition Unit in the Ministry of Health and Child Welfare of Zimbabwe welcomed a request by some members of the Council of Chiefs to revive a traditional social welfare practice known as Zunde raMambo in Shona. The assumption made at the time was that, since Zunde was a traditional practice, communities would find it easy to identify with it and, therefore, would support it. It was also assumed that communities would own the programme, thus guaranteeing its sustainability. However, in 1999, the revival and implementation of the Zunde had yielded varying results. In Kwekwe District in the Midlands Province, for example, Zunde had been well received and implemented under Chief Samambwa. However, in Mashonaland Province and other areas, the Zunde project had either not been well received or had not even been talked about.

It was envisaged that, if implemented, the Zunde programme would, among other issues, increase food production and, therefore, reduce levels of malnutrition at the village level. This would also decrease dependence on the state for food, thus shifting state welfare to the village level.

After three years of trying to revive Zunde, it was decided that the project should be evaluated to assess whether it was a sustainable community food security programme or not. A team composed of personnel from the departments of Nutrition and Sociology of the University of Zimbabwe and officials from the Nutrition Unit of the Ministry of Health was tasked to assess the viability of the programme. This article contains observations made by the team and provides an interpretation of these observations.

In the sections which follow, the study explains the historical context of Zunde, examines some case studies, and gives an evaluation of whether the project can be used as a sustainable food security scheme at the village level. It also discusses the level of human factor competence as a major variable in the success or failure of the project. Linked to this, are participants' human factor content and human factor engineering as determinants of success or failure of similar projects and indeed other projects.

HISTORICAL CONTEXT

Zunde is a Shona word that may mean a large gathering of people taking part in a common activity or may refer to plenty of grain stored for future use by people in a particular community. However, Zunde normally means an informal, in-built social, economic and political mechanism. Its primary aim was to ensure that a particular community had adequate food reserves that could be used in times of food shortage. The Zunde practice ensured that food security for a village or villages was guaranteed at all times. A Chief designated a piece of land for cultivation by his subjects. The yield from this land was stored in granaries (Zunde raMambo) at the Chief's compound. The food was also used to feed the Chief's soldiers, subjects awaiting trial, the Chief's advisors, and the destitute, as well as travellers who stopped in the village for the night. Village ceremonies such as burials also benefited from the Zunde raMambo food reserves. The main beneficiaries were, however, the villagers themselves during times of food shortages.

Zunde was perceived not only as a crop production activity whose main objective was to address food shortages, but was also regarded as a social, economic and political rallying mechanism. It was used by the chief to control his people and to ensure their safety. Participation in the

Zunde raMambo was an expression of oneness and carried with it social and moral obligations. Food was perceived not only as a means of meeting nutritional requirements, but also as a social tool which brought people together to share their successes and/or failures.

Where a man had two or more wives, Zunde raBaba (father's Zunde) was practised. Each wife had a piece of land where she grew her crops. The yields were used for the up-keep of family members. The wives and their children were expected to work in the husband's fields during designated days of the week. Yields from the husband's fields were stored in his granary and were used to meet important family needs or during periods when the wives' food provisions were exhausted.

REVIVAL OF ZUNDE: CHIEF MAKONI'S ROLE

During the 1994/95 agricultural season, Chief Makoni in the Makoni District of Manicaland Province decided to revive the Zunde raMambo practice. He was convinced that the revival of this traditional practice could solve the problem of food shortages and could reduce malnutrition. He approached the Makoni District Food and Nutrition Management Team to solicit their support. The team accepted the idea to revive Zunde and proceeded to implement it. Initial efforts were encouraging. It was, therefore, decided that the idea should be tried in other areas as well. Consequently, in 1995, a National Inter-Ministerial Planning Meeting was held. The meeting endorsed the proposal in the hope that the Zunde raMambo scheme would solve food shortages at the village level. Subsequently, consultative meetings were held in order to introduce the concept to other traditional leaders.

The first such meeting was held in Nyanga in 1996. Members of the Chief's Council and Provincial Food and Nutrition Management Teams attended the meeting. A steering committee of ten chiefs was selected, representing each of the country's administrative provinces, plus the president and vice-president of the Council of Chiefs. Chief Makoni was elected chairman of the steering committee. Civil servants, who comprised the Food and Nutrition Management Teams, were expected to provide technical support. It was resolved at the Nyanga meeting that traditional leaders, namely chiefs and village heads, would lead the Zunde raMambo project.

Before examining further attempts to revive Zunde in selected areas, it is necessary to discuss the social and political structures under which the project was being revived in order to provide a background to the attempts that were being made to revive the Zunde and the constraints which faced these efforts.

SOCIAL, ECONOMIC, AND POLITICAL STRUCTURES

The function of chiefs in Zimbabwe can be classified into five broad categories: constitutional and legislative, judicial, ceremonial, religious, and developmental functions, as well as the maintenance of law and order. These functions are, broadly, in line with what is in practice in many other parts of contemporary Africa. Generally, chiefs are expected to look after the spiritual and material welfare of their people. As judicial authorities, they preside over traditional courts with the assistance of advisors selected from within the community. Chiefs are expected to perform a wide-range of ceremonial rituals, including ensuring the observation of taboos for the protection of their own persons, the safety of the sacred relics at their disposal, and carrying out rites on behalf of the community. The traditional role of chiefs is, therefore, to protect the livelihood of the people and their environment (Buxton, 1963; Gluckman, 1963).

In Zimbabwe, the Traditional Leaders Act (Chapter 29:17 of 1998), sets out guidelines on how chiefs are appointed, their duties, and how they ought to relate to other branches of the government. Part II, sections 3 to 7 of the Act, outline how chiefs are to be appointed, their duties, delegation of their functions and disciplinary procedures as they apply to chiefs. Section 5 (b, d, and q) states that a chief shall be responsible for promoting and upholding cultural values among members of the community under his/her jurisdiction. He/she is empowered to nominate headmen for appointment and to supervise them, as well as to co-ordinate development committees in his/her area.

For administrative purposes, rural areas in Zimbabwe fall under the District Councils. The Rural District Councils Act (1988) gives legal power to Rural Councils to administer the affairs of rural areas. The chief allocates land to members of his/her community, but only in consultation with the Rural District Council, as provided for under section 5 (g) of the Traditional Leaders Act. The Rural District Council structures exist alongside traditional and political structures.

Each district has a chief. Under the Chief are Headmen (masadunhu), and under them are village headmen (masabhuku). Districts are divided into wards. The chief may delegate some of his/her functions to headmen in his/her area without divesting himself/herself of such functions. It is against this backdrop that this study examines attempts to revive Zunde raMambo.

THE IMPLEMENTATION OF THE ZUNDE RAMAMBO PROJECT.

The evaluation of the Zunde project focused on four districts within three provinces: Chief Samambwa's area in Kwekwe District in the Midlands

Province, Chief Kazangarare's area in Karoi District in Mashonaland West Province, Chiefs Nyamweda and Chivero's areas in Chegutu District, and Chief Makoni's area in Manicaland Province. Chiefs Makoni and Samambwa's areas were selected because the *Zunde* project had been well received in them, while Chiefs Nyamweda and Chivero's areas were chosen because the *Zunde* concept had been tried, but without success. Chief Kazangarare's area presented a contrast to the other areas because the concept had not been implemented. The evaluation team wanted to assess why the *Zunde* project had been well received in some areas but not in others. The evaluation focused on available social and economic structures, access to and control of resources, quality of leadership and the relationship which existed between local leadership and government structures.

Below, the study explains the Zunde project sites before examining some of the variables that influenced the success or failure of the project.

STRUCTURE OF ECONOMIC ACTIVITIES IN THE ZUNDE PROJECT AREAS

The structure of economic activities in the Zunde project sites should be understood within the context of the fact that Zimbabwe falls into three broad physical regions: The highveld, the middleveld, and the lowveld. Zimbabwe is further divided into five agro-ecological zones: I, II, III, IV, and V. The agricultural activities in these zones are limited by the availability of rainfall and water supply. The rainfall in natural region I is generally above 1 000 mm per year, thus permitting forestry, fruit and intensive livestock production. In natural region II, rainfall is confined to the rainy season (October to March) and ranges from 750 mm to 1 000 mm per year. The region is suitable for crop farming and/or livestock production. Natural region III receives 650 to 800 mm of rainfall per year. The rainfall usually arrives in heavy falls, with severe mid-season dry spells. The production of maize, tobacco, and cotton are marginal in this region. Natural region IV experiences low rainfall (450 to 650 mm per year) and is subject to periodic seasonal droughts and severe dry spells during the rainy season. The main agricultural activity in this region is livestock production. The rainfall in region V is too low and erratic for agricultural activities to take place. The Zunde project sites fall in regions III. IV. and V.1

¹ See also Mararike, C. G. Survival Strategies in Rural Zimbabwe (Harare, Mond Books, 1999), Chapter 4; Chavunduka, G. L. (Chairman) Report of the Commission of Inquiry into the Agricultural Industry (Harare, Government Printer, 1982), for more information on agro-ecological zones).

It should also be noted that the economy of Zimbabwe comprises of a monetary sector, which co-exists with a rural economy. In 1994, per capita income in the monetary sector of the economy was over 20 times the estimated per capita income of rural households (CSO, 1994). There is a substantial urban-rural and rural-urban outflow of capital and human resources, foodstuffs, and services. This urban-rural and rural-urban outflow has important implications on how people manage to survive and may have an impact on how people perceive collective projects such as *Zunde raMambo*.

Most family units in rural areas depend on farming for their livelihood. Each family unit is normally entitled to a piece of land for crop cultivation. Most people keep some cattle, goats, and chicken. Livestock are an important asset in various social and economic transactions such as marriages, family rituals, ceremonies, and exchange in times of crises such as famine and/or illnesses. Small livestock such as goats and chickens are often used as "buffers" in times of crises. They are sometimes sold first before cattle or food grain to raise funds for pressing family needs such as school fees and medical bills.

Metal ploughs, hoes, wheelbarrows, and cultivators are some of the important implements found at most homesteads. Maize is the most popular crop in all the Zunde project sites. It is ground into flour, which is then used to prepare sadza (thick porridge), the staple food for most people in Zimbabwe. Other crops grown are rapoko, finger millet, a wide variety of vegetables and groundnuts. However, the most important resource to all the people in the Zunde project sites is land. The evaluation of the Zunde project should be understood against the background of how people accessed land and how they controlled land-based resources. It is under the above economic activities that this study discusses the Zunde raMambo project sites. It focuses on how the Zunde project was organized and managed, noting in particular the role that chiefs and headmen played in the success and/or failure of the project.

THE ZUNDE RAMAMBO PROJECT SITES

Chief Samambwa's area

Chief Samambwa's area is located in the Kwekwe District in the Midlands Province, Zhombe area, which Chief Samambwa has jurisdiction over, falls within region IV and receives 450-650 mm of rain per year. The area has mostly vertifoils and parafersiallitic soils. Such soils rapidly lose fertility when cleared of indigenous vegetation. Year after year, cultivation worsens soil infertility, and thus crop yields easily deteriorate.

Chief Samambwa decided to introduce the Zunde raMambo project after he had visited Chief Makoni's area in 1997. He spent four days

observing how Chief Makoni had attempted to revive the Zunde project. He selected those aspects of the project that he thought would be in line with what he wanted to introduce in his area. Upon his return from Chief Makoni's area, Chief Samambwa called a meeting of his 92 headmen, explained the Zunde idea to them, and persuaded three of them to try the Zunde project in their areas, Zunde committees were established, all headed by village headmen who, in turn, reported to Chief Samambwa. Other members of the committee were a vice-chairperson, a secretary, a treasurer, and a committee member. The committee drew up guidelines that were to be followed by all participants in the Zunde project which included spending three to four hours per week on Zunde work. Although participation in Zunde activities was voluntary, a number of social and moral obligations compelled all adult members of participating villages to be involved. They all appreciated the support and help that they received from other villages during times of distress such as death or illness in the family. Apart from crop production, members of the Zunde assisted each other in times of bereavement and exchanged information about family issues such as childcare.

Mobilisation strategies used by Chief Samambwa and his village headmen created a sense of ownership of the Zunde project. The piece of land that they used to grow crops was given to them by the Chief. They had full responsibility over the land and its produce. Each meeting of the Zunde project began with a prayer, to be followed by songs and slogans composed or identified by the chief as a way to boost the morale of participants.

Produce from the Zunde fields was used to feed children under the age of five years, the disabled, and the old members of the villages and to support those who would have been bereaved. Occasionally, members of the villages who had run out of food provisions borrowed grain from the Zunde granary, to be replaced after the next harvest.

Although the *Zunde* project appeared to have been well received in Chief Samambwa's area, there were still many problems which threatened its continuation. Shortages of land, agricultural inputs, weak co-operation with government sections and the Chief's lack of full control of his people were some of the problems referred to by Chief Samambwa. This will be discussed in detail below.

Chiefs Chivero and Nyamweda's areas

Chivero and Nyamweda's areas are in Mhondoro north in Mashonaland West Province. The areas fall within agricultural regions III and IV and receive 450-650 mm of rain per year. As in Chief Samambwa's area, the main crop grown is maize. The people of the areas faced an acute land shortage problem and had difficulties securing needed agricultural inputs.

Although the people in these areas had been encouraged to revive the Zunde raMambo project, nothing had yet been done at the time of the evaluation. The chiefs were not keen to revive the Zunde practice. Among the reasons given for not implementing the Zunde raMambo idea were the people's dislike of the idea, the lack of the necessary resources and the fact that the chiefs did not have the power to compel their people to carry out such projects. They felt that the government had removed the power of the chiefs to run affairs in their areas as was the case in precolonial times.

Chief Makoni's and Kazangarare's areas

There were 496 village headmen under Chief Makoni. Thirty-six of them had opted to revive the *Zunde* practice. The *Zunde* project was organized in the same way as in Chief Samambwa's area. Chief Makoni's expectations were that the *Zunde* project would be used to improve the livelihoods of the villagers. The Zunde project also had the potential to improve peoples' food self-sufficiency.

In Chief Kazangarare's area, three of his headmen attempted to revive the Zunde, but without success. The Chief himself was not a participant in the project. He complained of lack of agricultural inputs and was of the opinion that most of his people were averse to collective projects such as Zunde. Besides, most people had very little respect for the Chief's authority, a point that the Chief himself acknowledged.

In the section which follows, the study discusses observations made by the evaluation team on why the Zunde project had partially succeeded in some areas, but had been rejected in others. It attempts to link the lack of motivation to revive the Zunde project to weak human factor competence, human factor content, and human factor engineering. It also refers to poor policy formulation and implementation as a variable which contributed to the failure of the revival of the Zunde raMambo project. The study also suggests alternative options which may be followed.

DISCUSSION OF OBSERVATIONS

As already noted, Chief Makoni first came up with the idea to revive Zunde raMambo. His concern was to minimize food shortages in the villages and, at the same time, reduce reliance on food aid from the state and/or donors. The Nutrition Unit of the Ministry of Health and Child Welfare then took up the idea. Its intention was to provide technical support as well as help to make the idea a national one. A number of problems became apparent in the process of trying to revive Zunde.

Context

The context under which the Zunde project was being revived created the first problem. Zunde had a historical context. The role and functions of chiefs in contemporary Zimbabwe and, indeed, most parts of Africa, have changed. The social and political circumstances are also different. Reviving a traditional practice out of context can be a problem in itself. Although chiefs could be used to revive the Zunde project, as was the case in the past, the role and functions of chiefs have been altered. Their source of power and authority has also changed. Chiefs no longer command the same respect and authority over their communities as they used to do. They have no control over assets that can be distributed to their subjects, such as land. For a long time, chiefs have been made political footballs to be kicked around by both colonial administrators as well as post-independence leaders (Mangiza, 1985; Mararike, 1995).

Conceptualization

The second problem associated with the revival of *Zunde* is that of *conceptualization*. The *Zunde* concept cannot be easily understood by present generations. Their frame of reference has largely shifted from being under chiefs to being under other authorities such as District Councils, political parties, and central government. Although the personality characteristics of chiefs could assist in mobilizing people to support the revival of *Zunde*, their status could not be expected to assist in this regard.

Control of assets

The third problem has to do with peoples' access to and control of assets such as land, knowledge, and organizations. Land availability is a problem. Control of the available land is no longer in the hands of Chiefs as was the case in the past. For a Chief to ask people to join in the revival of Zunde implies that he has the required resources such as land.

THE HUMAN FACTOR APPROACH AND REVIVAL OF ZUNDE

In this section, the study discusses the human factor approach in relation to the revival of *Zunde raMambo* and points out the importance of human factor content, human factor competence and human factor engineering.

The main claim of the Human Factor approach is that no organization or, indeed, any human activity, can sustain itself without people who are reliable, committed, disciplined and have appropriate skills and qualifications. In addition to all these qualities, people must believe strongly in the ideals of their organizations or societies and affirm them at all times. This can only be possible if the peoples' human factor

content, human factor competence, and human factor engineering are appropriately developed. The term 'human factor' is used here to refer "to the spectrum of personality characteristics and other dimensions of human performance which enable social, economic and political organisations to function and remain functional over time" (Adjibolosoo, 1998, 11).

The success or failure of the Zunde raMambo project must be explained further from the human factor approach claim. We refer specifically to human factor content, human factor competence, human factor engineering, and human factor decay. The human factor approach takes the view that a combination of these factors contributes to the success or failure of human activities and, therefore, human factor development.

The Human Factor characteristics and content

Personality characteristics such as commitment, reliability, dedication, and discipline constitute part of the human factor content (HFct). Chiefs Samambwa and Makoni and some of their subjects believed in the ideals of the Zunde project and affirmed them. Their commitment to the Zunde project emanated from the way they perceived the project's psychological and material benefits. The strength of one's HFct arises from the clarity of the project and its goals. But clarity comes from an appropriate conceptualization of the project and what one may perceive as benefits coming from taking part in the project. This clarity of perceived benefits helps to develop a positive HFct. Implied in the term human factor is that human performance depends on how the HFct is motivated. Most participants in the revival of Zunde raMambo were not positively motivated. In other words, their HFct failed to perceive any psychological and material benefits if they participated in the Zunde project. This negative human factor motivation affected their human factor competence (HFcp).

Human Factor competence (HFcp)

Human factor competence (HFcp) refers to a person's organizational skills and capacity to deal with tasks he has set for himself/herself or tasks assigned to him by an organization or society of which he/she is a member. HFcp comprises of a person's readiness, awareness, ability, willingness, and capacity to identify problems and then attempt to seek solutions to the problems (Adu-Febiri, 2000). Readiness and awareness refer to a person's perceptions of what his/her problems and needs are and how he/she proposes to deal with them. As part of HFcp, readiness and awareness address perceptions of an unfulfilled desire or need. This may be tangible or intangible. They affect the individual's sphere of life. The person may proceed to tackle problems if he/she thinks that such problems are reversible as opposed to those that are not reversible.

A person's ability, capacity, and willingness largely depend on whether the task to be tackled is perceived to be achievable. Variables such as the context and conceptualization of the problem, as well as the availability of resources to use, play a major role. All these variables constitute one's HFcp. Human factor competence links up with the HFct and influence either human factor engineering (HFeg) or human factor decay (HFdy).

Human Factor engineering (HFeg)

The concept human factor engineering (HFeg) refers to how one's HFct and HFcp are motivated. The assumption made by HFeg is that, if one's HFct and HFcp are in place, one should be able to carry out one's tasks without prodding, assuming that one has the needed resources. On the other hand, the concept of human factor decay (HFdy), refers to the collapse of a person's HFct, HFcp and HFeg. As illustrated in Fig 1, the person will have drifted from normal human factor characteristics to HFdy, as opposed to drifting towards HFeg. Fig 2 gives a summary of HFct, HFcp and HFdy.

Figure 1 HFDY AND HFEG

-45 -40 -35 -30 -25 -20 -15 -10 -5 NHFC +5 +10 +15 +20 +25 +30 +35 +40 +45 Negative behaviour (HFdy) Positive behaviour (HFeg)

Note: NHFC means Normal human factor content

Figure 2: COMPONENTS OF HFCT, HFCP, HFEG AND HFDY

acainlination

(a)	нгс	its source are:	socialization culture society	
(b)	НЕср	Refers to:	awareness ability readiness willingness capacity	
(c)	HFeg	incorporates:	HF characteristics HFct HFcp	
(d)	HFdy implies collapse of:		HFct HFcp HFeg	_

REVIVING ZUNDE RAMAMBO: CONSTRAINTS

Attempts to revive Zunde raMambo were intended to solve the problem of food shortage at the village level, but the efforts faced a number of constraints. The first difficulty lay in the areas of conceptualization and contextualization. Chiefs and their followers and government officials were expected to work together in designing the Zunde project. This was, however, not the case. Instead, there were many differences between the two sides. Chiefs traced the history of their problems and conceptualized and contexualized it in their own ways. They wanted to revive their lost authority and power through reviving Zunde raMambo, while, on the other hand, government officials perceived the revival of Zunde raMambo as a way of relieving themselves of the responsibility to deal with the problem of food shortage and shunting it off to chiefs and their subordinates.

The second problem stemmed from the lack of commitment on the part of those who were expected to implement the project. As already noted, the human factor refers to a spectrum of personality characteristics and other dimensions of human performance, which enable social, economic and political institutions to remain functional over time. Implied in this characterization of human factor are qualities such as commitment. discipline, and loyalty. Commitment to the ideals of an organization. however, requires one to understand and believe strongly in the goals and ideals of the organization. With regard to the revival of Zunde raMambo, it cannot be said that government officials and most of the villagers understood and accepted the reasons for reviving Zunde raMambo. Components of their human factor competence such as awareness. readiness, and willingness to see the project through could not, therefore, have been motivated under such circumstances. Participants in the Zunde revival project held different viewpoints on the nature of the project and its objectives and, thus, could not agree on how to revive Zunde.

CONCLUSION

The foregoing analysis of the efforts to revive the Zunde raMambo reveals that the fate of all projects depends on the involvement of persons with the correct human factor content for their success. However, these persons must also believe strongly in the ideals of the project and affirm them. This implies the existence of a well-developed human factor content, human factor competence, and human factor engineering, which are essential for the success of any human activities and human development.

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