Pastoralism and Land Reform in Rural Botswana

R.K. Hitchcock (Ed.) *Proceedings of the Symposium on Botswana's First Livestock Development Project and its future implications,* National Institute of Research, Gaborone, 1982, pp. iii + 226, P2.50

Until overtaken by the mining industry in the early 1970s agriculture was the largest sector of the Botswana economy. Even now this sector still plays a vital role since about 80% of the rural households depend on it for their livelihood. This includes a vast number of the poorest people in the country. This sector also contributes about 35% of the rural incomes and about 20% of the GDP. The livestock sector, especially cattle provides the major source of the rural incomes and is also the largest source of meat and beef products in the country and thus forms a major component in the country's beef export market. Consequently Botswana's development programmes which place heavy emphasis on improving the lot of rural communities as well as forging self-reliance understandably highlight agricultural development and particularly give priority to livestock improvement.

The First Livestock Development Project (LDP1) is one of the major rural development projects which was initiated and implemented with "efforts geared towards increasing beef and karakul production in the semi-arid rangelands of the western part of the country". The project was started with the purpose of making use of the vast range resource of the western Kalahari - an effort that would at the same time reduce overgrazing around the villages. As Hitchcock puts it "in a sense the project was a land reform effort in which farmers would be able to gain access to newly opened grazing lands over which they would have exclusive rights under leasehold tenure. Overgrazing in the communal areas would be reduced by removing larger herds and establishing the commercial ranches". The project, in addition to the cattle ranches, included 24 private sheep farms in the Bokspits, and 9 state run fattening ranches in various parts of the country for demonstration purposes.

The project components included a package of programmes, such as perimeter fencing, drilling and equipping boreholes, improved marketing systems, trek routes, technical surveys etc. Under this package Government of Botswana (GOB) with loans from IBRD and SIDA constructed and equipped the farms. Once finished, farmers moved their livestock in and assumed loans for the cost of the initial developments. From the onset the project suffered from a number of setbacks which were either overlooked or not perceived at the initial stage of the project. As a result of these setbacks the project fell far short of achieving its objective goals. A number of problems encountered during the implementation of this project were well spelt out by M. Odell (1978 and 1980) a SIDA consultant[1] and Carr (1980) an IBRD consultant.[2]

It was as a follow-up of Odell and Carr's reports (which identified problem areas) that a Symposium on Botswana's First Livestock Development Project and Its Future Implications was sponsored by SIDA and hosted by NIR in 1981. Its main objectives were "to provide guidance for the way forward in livestock and rural development efforts in Botswana". Participants were called upon to explore the possible lessons learned from the implementation of LDP1. About 35 papers in different topics relating to livestock and rural development in general were presented by some professionals and technicians for discussion. Participants really addressed themselves to various issues which vitiated the LDP1 and at the same time identified different lessons learned from the project and also made suggestions on how future rural development projects should be directed.

Failure of the LDP1 was a result of poor planning which affected a number of significant factors that had been ignored from the onset.[3] Ecological factors for instance, are very important facets in project planning in a number of ways. The project in this regard failed to consider the significance of biotic factors in an area with large populations of wildlife (especially wildebeest). Mannathoko, Ngwamotsoko, Molomo and others do point out that the project was launched on migration routes of the blue wildebeest.

The ranch fences were constructed without any corridors to allow for wildlife passage and as a result wild animals were confined and concentrated in areas where they eventually came into regular contact with livestock. The wildebeest spread malignant cattarrh fever which inflicted high mortalities on cattle herds. This killer disease has accounted for 25% of the herd deaths since the establishment of fenced ranches. On the other hand both the wildebeest and fences inflicted heavy damages on one another resulting in heavy losses in terms of maintenance costs, and numerous deaths of Botswana's wildlife resources which are also the country's source of food and revenue. Still on the same ecological zones both wildlife and livestock competed for the same resources - grazing and water ending up with the ranches being overgrazed and the killer disease taking its share, thus undermining the spirit of ranching along the farmers emerging from the traditional cattle-post system.

It has been shown that disturbance of the ecological zone such as siting the "karakul project and the lobo experimental station" where it is now known that the slightest concentration of animals over (on bare sand dunes that demonstrated desertification) a short period of time would quickly overgraze the area leaving it bare and enhancing desertification and desolation. It shows short sightedness on the importance of pre-surveys on areas of a fragile nature. It is a big mistake that up to now in a country with a fragile environment, there are no integrated national programmes designed to contribute to the management of serious environmental problems such as desertification, deforestation, soil erosion etc, which are of paramount importance in land utilisation.

It was also observed that the problem of putting fences on migration routes resulting in heavy losses on both sides is not experienced in the Ncojane ranches alone. A number of fencing structures e.g. for ranching, game control (veterinary cordon fences) rail and tarmac roads protection are heavily criticised by the department of Wildlife and Tourism on the ground of damage inflicted on various wildlife species by such fences. Predators enclosed within the fences also inflict a lot of damage to livestock. The BLDC ranches have learned a lot from such experiences.

Because of these problems, the veterinary department ended up shooting some of the species to the extent of poaching under the pretext of controlling wildlife and protecting livestock.

This is an important warning that if future programmes will continue to favour fencing, its history will continue to be disastrous. Why do veterinary authorities continue to build expensive fences for control purposes yet a strong vaccine is now manufactured locally?

Although good arguments on fencing by the Wildlife Department were advanced the paper presented did not:

i. give some guidelines on how and where fences should be erected

ii. give alternatives to fencing

iii. indicate what the magnitude of damage would be on wildlife, humans, traffic, roads and the rail if this infrastructure remained unfenced.

iv. indicate whether the vaccine quoted is more of a curative than of a preventative nature.

The papers on the ecological problems did not go sufficiently deep into some of the touchy issues either. That would have helped the layman's understanding of the problems.[4] They seemed to imply that wildlife migration routes are permanent. They do not state what the determinants of these migration routes are e.g. water, grazing etc. They do not state why, the migration routes are not diverted once the wildlife ecological zone is disturbed by man and his livestock.

Nevertheless it is very interesting to learn that the problems encountered are partly due to lack of consultation between interested parties and also due to the unwillingness to adhere to warnings and advice by the implementing ministry (MOA). Closer contact between interested bodies - in order to minimise losses - enough consultation, research and cooperation are now seen as being of paramount importance in future project planning and implementation.

In other respects the symposium learned that the LDP1 faltered by relying too much on the assumption that fencing was "not only necessary but almost self-sufficient for good ranch management". This approach is a misconception for it is not fencing and infrastructure development alone that bring about successes in livestock management. Factors such as extension services, and other important socio-cultural activities affecting productivity are very crucial in ranch management procedures. Slow changes in improved animal husbandry, range conservation etc., have been experienced by the project. No evidence exists so far that the concerted efforts by authorities to ensure that the recommended stocking rates were not exceeded, fire breaks were made, fences and other basic ranch management procedures were followed.[5]

Management procedures also failed because the ranch occupants were mainly of the cattle-post background, and managed their ranches as such, and as a result their ranches were characterised by overgrazing, and poor management decisions which contributed a lot to poor productivity. The peculiar absenteeism of the ranchers is another basic and fundamental factor that aggravated the poor performance of the ranches. But despite the fact

that the LDP1 did not fulfil its intended role as a pilot project it was observed that the subsequent phase of TGLP commercial ranching was to a certain extent still modelled on it (TGLP).[6]

For these mistakes not to be repeated a call is made for a very strong extension support if productivity is to be enhanced and range degradation avoided. There is also a call for the formulation of rigorous themes that can guide future livestock developments. These themes should include among others, those which will induce ranchers to adopt management practices, chief of which is "continuous adjustment of stock numbers to the ranches' varying carrying capacity".[7]

It is highly noticeable that none of the papers presented so far on the scope of poor ranch management, indicated whether the problems encountered were temporary or not. Why do ranchers decide to stay in the villages? What are the social and economic reasons behind this? Suppose good housing had been included in the project package would the ranchers who are not employed elsewhere still continue to stay in the villages?

If ranchers decide to stay permanently on their farms so that they can enforce proper ranch management decisions, will they not end up forming a petty bourgeoisie that is divorced from the communities of their origin? If so will the poor not suffer due to loss of benefits usually derived from richer members of the family? Does the presence of the rancher matter if proper or competent managers are employed, and management decisions are properly delegated? A rancher staying permanently on the farm but having no precise management decisions is as bad as any employed manager without any properly delegated management responsibilities.

The LDP1 was launched with high hopes that the project would spur development in several aspects of the country's livestock industry. It was thought that through the development of commercial ranches in the west, the project would test and demonstrate the benefits of fenced ranching and thus pave the way for a nationwide programme to enclose unfenced commons on a large scale.[8] Originally it was assumed by planners that the fenced ranching system was more productive than the cattlepost system.[9] This assumption is now subject to criticism by a number of experts. Results from analysed data on the actual performance of the two systems compared in accordance with herd size and geographical locations have disputed the APRU conclusions that the fenced ranching system was twice as productive as the cattlepost system. These (APRU) conclusions are not seen as only false or distorted, but also as having been very influential in the formulation of the TGLP.[10] Such studies also undermine the productivity of the cattlepost system since they would incorrectly suggest that the managerial improvement of the cattlepost system is not worth the effort. Working under these misleading conclusions researchers and policymakers would therefore "be tempted to pin all their hopes on a major overhaul, and interest would be delfected away from meeting the immediate needs of the majority of herd owners who keep their animals at the cattleposts".[11] It therefore goes without saying that where there is lack of confidence in a certain livestock raising system by the competent authorities, the productive potential of that system as well as its ability to change and modernise remain at stake.

Benkhe's argument that there is not much significant difference between the productivity of the fenced ranch and a comparable cattlepost system

is supported by the findings of Hubbard and those of the University of Edinburgh Expedition to Botswana 1971-72[12].

Bekure on the other hand, after re-analysing the 1979 results of the APRU Annual Report, came out with the results that a "cattlepost operation was more financially attractive than a commercial ranch".[13] For a commercial ranch to be a profitable venture, a few conditions should be met and at the same time occurrences of severe or prolonged droughts should be borne in mind. Management that is capable of instituting improved cattle husbandry, range management over the prevailing system are very necessary conditions. A ranch herd size large enough to take advantage of opportunities for attaining high production levels afforded by improved ranch infrastructure and management is required. An argument for the placed gradual development of ranches with limited capital expenditure as opposed to the turnkey ranching system is proposed. Improved financial awareness, technical proficiency of the rancher, and the training of ranchers are given as factors that cannot be ignored in ranching productivity.

A number of papers on this aspect, of the economic productivity of the ranching system, call for the avoidance of some economic projections in livestock development projects which tend to be too optimistic. Such projections do not take into account the possibility of drought induced shortages.[14] For instance during drought, ranch herd numbers drop and it takes several years for them to recover. Lack of pre-surveys on factors such as morbidity and mortality prevalences, alternative production motives in the same ecological zone e.g. moving relatively from pelt production to meat or wool production due to communication and marketing constraints, highly affect the profitability of the ranching system. There is, therefore a call for realistic production models which take into account the risks that may be inflicted on the project by such hazards.

Apart from the killer disease, none of the papers presented ever mentioned whether the economic profitability of the LDP1 was affected either by fire or drought outbreaks or not.

Some of the papers[15] addressed themselves to the socio-economic consequences of the enclosure system over land that historically, some people had had access to (as communal). Policies such as the TGLP are now seen as limiting the future access of tribesmen and subsequent generations. The rights and roles of commercial ranches in the communal areas are now subject to questioning.

In this respect Kjaer-Olsen cites as an example, the attitudes of the Ncojane villagers towards the 25 LDP1 ranches, and also looks at the social implications of the project and lessons to be learned for the TGLP. At the start of the project, there were some aspirations among the villagers that the ranches would provide an answer to most of their livestock problems i.e. water, grazing and straying. But eventually villagers became frustrated when they realised that the ranches were also allocated to outsiders while a number of local problems remained unsolved. Group ranching for example was not accomodated, and the ranches did not reduce pressure on the communal areas. The withdrawal of large herds from the communal areas is seen as having negative effects on the mafisa system - for milk and draught power.

Arguments for the mafisa system are developed by Hitchcook and others who spell out what the consequences would be in "cases where people tied in too complex networks of relationships in which goods and services are exchanged" when disturbed. It is observed that when this crucial system is removed some negative impacts particularly on the poor will be experienced. They will lose an important source of subsistence and income. It is suggested that in future, development should be focussed on the villages as well. Village based projects like the VADP (1975) are seen as counter-balancing efforts, but their shortcomings are that they provide area infrastructure and have little impact in the creation of incomes and employment.

Further points are raised that although the LDP1 "has suffered from being simultaneously a pilot transformation of land tenure and management and a major project in a remote and isolated area" the ideas behind the TGLP are the same as those that prompted the LDP1.[16] This is a clear sign of short-sightedness on the part of project planners for this indefinite continuation of zoning land for commercial ranching as the primary focus for development, will result in the dispossession of substantial resident populations of large land resources.

People will be forced to move into the communal areas with sizeable herds, resulting in the TGLP achieving the opposite of what it was set out to do. Such negative impacts will include increases in stock numbers in the communal areas, and exacerbate the problem of overgrazing and low levels of production.

One question that needs to be answered in this connection (which perhaps the presenters overlooked) is, if they are worried that the removal of large herds from the communal areas to the commercial ranches will have negative effects on the mafisa system, and at the same time they are worried that the fenced ranching system will force large numbers of cattle into the communal areas, how do they simply conclude that the mafisa system will be affected negatively yet there will still be more and more cattle moving into the communal areas? Are very large herd owners the most generous people who offer the mafisa? This may on close examination turn out not to be the fact for large stock owners may in fact be so profit minded as to resent the system since it reduces the productivity of their improved herds. Perhaps a large number of medium herds size will still be in the commercial areas and the system may not be negatively affected as people see it now. Perhaps more mafisa would be offered once the cattle are within easy reach. This needs to be explored further by analysts.

There are a number of papers which are more of a general nature and some of which address themselves towards rural development in somewhat broader perspective. Most of these papers call for a re-direction of future development plans that should focus more attention on communal area development where the poor majority live. Such papers drew the attention of participants to the fact that, past development programmes benefitted the better off and more progressive farmers to the general disadvantage of the poor in adjoining communal areas. These papers therefore call for a clear understanding of the target groups as a necessity for guiding projects during their planning and implementation stages so that inequalities in income distribution do not develop and social justice is not abused. They see projects like the LDP1 as merely encouraging the use of

cattle for meat production only and thus reduce the use of cattle as draught power and this results in serious implications for the resource poor households.

They therefore draw the attention to the fact that a thorough knowledge or understanding of the complete picture of communal cattle management and particularly the other functions of cattle in addition to beef production, - namely, draught power, milk, hides etc. as very essential. Lightfoot suggests that "alternatives for achieving household self-sufficiency in food production can be achieved through important linkages between livestock and crop production."

A call for development strategies that will include small farmers and non-stockholders in projects orientated to remote areas with loan schemes attached is amde so as to achieve development goals. CFDAs are seen as important programmes in these forums. J. Hope calls for the strengthening of local institutions in the communal areas for the smooth success of communal projects which attract group participation."[7] Factors such as management committees, and effective leadership with clearly stated objectives are seen as very crucial. Adequate organisational support, and vigorous extension service are also of paramount importance. Lack of participation by the kgotla councillors and MPs is seen as a drawback to rural development projects.

In conclusion the symposium itself was a success. The participants tried to identify some areas of concern for future development programmes. It is of particular interest to note how participants placed so much emphasis on the need to re-direct future development programmes so as to favour the communal areas in particular. From LDP1 it has been learned that other livestock raising systems (e.g. cattlepost) are as important in the development process as the commercial ranching systems and so should neither be overlooked nor underestimated in their production potential. It has also been observed that the livestock industry alone, cannot cater for or account for overall development in the rural areas in spite of the fact that it is the dominant sector in the process of rural development. A number of rural projects some of which can be linked with this sector (e.g. cropping system) are also noted as very important in meeting the country's objective development goals. Proposals for the participation and strengthening of individuals, small farmers, non-stockholders, remote area dwellers, local institutions etc. in communal area development is also seen as another major step forward in the development process.

In planning their development programmes policy-makers and planners will therefore learn a lot from the conclusions drawn from symposia of this nature. They can use these conclusions as guidance for future development programmes.

One observation to note is that all the papers presented at the symposium were prepared and delivered by professionals and technicians. As such, the papers were in a jargon intelligible mainly to persons who form part of such groups. The absence of any participation by the laymen was striking. The symposium failed to include among its presenters anyone from either the affected ranches, or from the adjacent villages, local institutions, say, chief/headman, councillor, VDC etc. to state their case in the laymen's language. This omission overshadows the later recommenda-

tion made by the participants that in future the inclusion of a cross-section of various village or communal area groups in the planning and implementation of development programmes should be taken as paramount, yet the very symposium itself failed to meet this obligation.

Footnotes

1. Odell, Marcia L. Botswana's First Livestock Development Project: An Experiment in Agricultural Transformation, Gaborone, 1980, SIDA & Government Printer

2. Carr, S. Botswana Livestock Development Project (Credit 325-BT) Completion Report. Washington D.C. 1980. World Bank.

3. See chapters by M.M. Mannathoko, "Animal Health Implications of Botswana's First Livestock Development Project"; K.T. Ngwamotsoko "Lessons for Future Livestock Development Projects in Botswana: Wildlife Resources Considerations"; I. Molomo, "Problems in the Ncojane Ranches."

4. For example those chapters by Ngwamotsoko, op.cit G. Seitshiro, "Range Ecology in Western Botswana", and R. Kwerepe, "The Ecological Implication of Ranch Establishment."

5. Chapter by Paul Devitt, "Some Themes in Livestock Development Projects."

6. Ibid.

7. Ibid.

8. Odell, op.cit.

9. See chapter by R. Benkhe, "Closing the Gap: A Revaluation of the APRU Studies of Cattlepost and Ranch Productivity"; S. Bekure, "The Economics of Commercial Ranching"; M. Hubbard, "The 1979 and 1980 Agricultural Statistics"; R. White, "Ranch Development and Land Use Planning in Western Botswana."

10. Benkhe, op.cit

11. Ibid.

12. M. Hubbard, op.cit. See also results of University of Edinburgh Veterinary Expedition to Botswana 1971-72 cited in Benkhe op.cit p.81.

13. See Bekure, op.cit.

14. See chapter by R. Turner, "Drought Risk in the Early Stages of a TGLP Ranch".

15. For example M. Marquart, "Land Tenure and Livestock Development."

16. Hitchcock, R. "New Directions in Livestock Development in Botswana."

17. Hope, J. "Group Development Efforts in Central District".

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