

THE RELEVANCE OF THE NINE SPOKES OF THE WHEEL AS AN EXTENSION TOOL IN THE TWENTY FIRST CENTURY EXTENSION SERVICES¹

Diale, N. R.²

ABSTRACT

Murton's Extension Program Planning Procedure (Nine Spokes of the Wheel) was applied in the past for a period of almost twenty years (early 1970s to 1994) by the then public extension service. It was later deserted by the new administration without a sustainable replacement. The purpose of this paper is to re-introduce this model as an extension program planning tool for the current extension services. The paper conducted a review of literature on extension program planning, and people participation in such processes and other community development programs. It conducted comparative analysis of the literature sources from both conventional and participatory extension methodologies' perspective. The paper applied snowball sampling approach to select the retired extension veterans as key informants of the study. Narrative approach was applied in the presentation of the findings. The study found that the tool is still relevant but it needs to be modified to be much participatory in approach. The re-introduction of the Nine Spokes of the Wheel may provide the current public extension service with a systematic approach the services can use as their professional directive or guideline through which they may be able to justify or account for their professional actions. The paper recommends that extension services should enforce procedural compliance in the implementation of any extension program in ensuring that all the necessary extension program planning procedures are observed and also to ensure authentic and active participation of the role players which may enhance their attainment of self reliance and harness sustainability of such a program.

1. INTRODUCTION

The Republic of South Africa through her National Planning Commission lists as part of her objectives in the National Development Plan (NDP) 2030, public investment into research in development of new agricultural technologies for commercial farming, adaptation strategies, and support services for small-scale and rural farmers. Every organ of State or development agent has a duty to contribute to the achievement of these objectives. Extension service is not exempted from this national responsibility. It is also common knowledge that governments regularly change from one to another, and their national development objectives change. However, it is debatable that extension as one of development methodologies should or does change as governments or national objectives change.

Extension service has processes and procedures to follow in the implementation of any extension program. However, these procedures come and go as governments or public administration structures do. For example, Murton's (1965) Extension Program Planning Procedure popularly known as *Nine Spokes of the Wheel* was used by the former Lebowa homeland administration's department of agriculture as its sole extension tool since early 1970s till its collapse in 1994. Messrs Mahlase, M. E., Mogashoa, S. J. and Bapela, N. W., the retired extension veterans used this tool when they joined the Lebowa administration in 1974, 1975 and 1976 respectively till 1994. I also used this tool as extension officer in the same administration as from 1988 to 1994. Subsequent to this, the new Limpopo administration's department of agriculture adopted *Participatory Extension Approach* (PEA) as the official participatory development model for delivery of extension services in the Province under the auspices of the Broadening Agricultural Services and Extension Delivery (BASED) program since 1998 (Limpopo Department of Agriculture, 2006; Novafrica, 2005; Zwane, 2005). In 2011 the concept of *Community Mobilising for Cooperative Development* was imported from Israel for the disposal of extension services (Diale, 2011). None of these models is currently in common use in the Province.

Extension services in some cases fail to achieve their extension objectives when the implementation of extension programs is done without observance of extension program planning processes and procedures that are imperative for a successful implementation of such programs. An example of such cases was noted by Diale, Sefala, Phatudi-Mphahlele and Magogodi (2014) when the Limpopo 2012 Farmer Mechanisation Support Program was implemented without prior survey, which is the first of the nine steps of Murton's (1965) Extension Program Planning Procedure. The steps of this tool entail: (1) *survey* of the community's environment; (2) *analysis* of the findings to find (3) people's *needs* and the (4) *solutions* to such needs; (5) determination of *objectives* towards addressing the needs; (6) *planning* of work; (7) *execution* of the plan of work; (8) *evaluation* of the implementation processes; and (9) *reconsideration* of the program to decide whether or not to reinvent the wheel. The question that remained unanswered is whether or not this tool is still

¹ Presented at the 49th Annual Conference of South African Society for Agricultural Extension on 4th June 2015, at White River, Mpumalanga Province of South Africa.

² Senior Agricultural Advisor, Extension and Advisory Services, Limpopo Government Department of Agriculture, RSA. www.nkgodidiale.com

relevant in the twenty-first century extension services. Figure 1 depicts all the nine steps of the procedure in a nine-spoke wheel model.

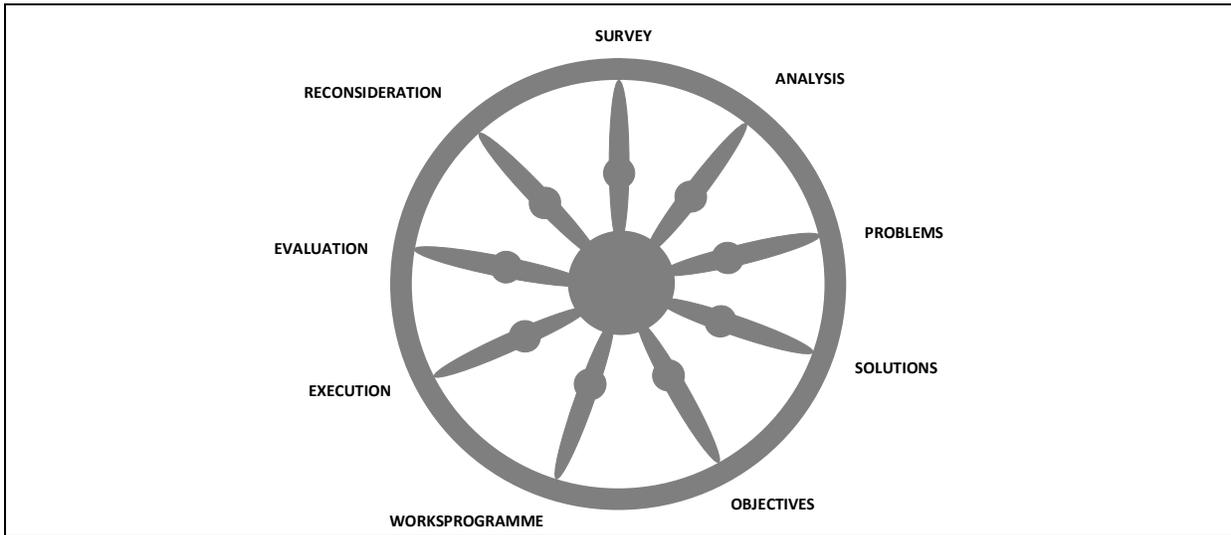


Figure 1: Murton's (1965) Nine Spokes of the Wheel as reconstructed by Diale (2014)

2. PURPOSE OF THE PAPER

The purpose of this paper is to re-introduce the Murton's (1965) Extension Program Planning Procedure (*Nine Spokes of the Wheel*) as an extension program planning tool for the current extension services. The paper first studies the relevance of this extension tool in today's extension services. The paper also looks into how the tool manifests itself in the current extension services, and how it can be modified or aligned to the current extension services. It also studies the implications the application of this tool may have on today's extension services.

3. METHODS OF DATA SOURCE

The paper conducts a review of literature on extension program planning, and people participation in such processes and other community development programs. The paper conducts comparative analysis of the literature sources from both conventional and participatory extension methodologies' perspective. The paper also applies a snowball sampling approach to select the retired extension veterans as key informants of the study. The paper applies narrative approach in the presentation of the findings.

4. RESULTS AND DISCUSSIONS

4.1. Survey

Murton's (1965) argues that survey process provides extension service with facts about the area and its people within which extension service is provided. This helps the extension service learn what the people think and understand, their way of life and how they act, what they have and what they need, for extension starts with the people as they are, not as the extension service thinks they should be. Gregory (1986) and Bembridge (1991) agree that extension survey provides extension service with information about the people so that when it communicates with them, the message should be designed in such a way that it responds to their aspirations and it is understood and accepted by the audience.

According to Murton, survey is not the responsibility of extension worker alone but a team effort that should involve the extension worker on the ground, senior officials, specialists and research workers within the organisation. This helps the entire organisation understand the communities' real and felt needs as well as the support extension service needs for appropriate service delivery. The survey provides extension service with information about farmers in respect of *inter alia* their level of education, household income, traditions and customs, leaders in the community, Tribal Authorities, etc. Paul (1983) noted a similar concept as *reading the environment* which provides development worker with information about the prospective beneficiaries of the program, demand of the program's services, and the key actors that may have influence on the implementation of the program.

4.2. Analysis of the Problems (needs) and Solutions

Analysis of farmer's needs provides extension service with information about what they need. Extension service may use these needs to motivate such farmers (Gregory, 1986). Murton (1965) noted this step as *the definition of problems* through which aspects that appear to be the cause of the community's unsatisfactory production or development condition is identified and defined. Paul (1983) noted this step as *diagnosis of the problems* that can only be generated from reading the environment. He argues that the problem diagnosis and farmers themselves may for example generate some inputs to agricultural program about whether production inputs such as seeds, water, fertilizers, etc may have to be provided to farmers by the program or whether such support has to be simultaneous or so. Gregory argues that when extension service conducts need analysis, it may also apply *creation of new needs* strategy which in terms of Participatory Development Approach (PDA) is termed *creation of discomfort* so as to make people think deeper about their situation and work hard to find solutions (Novafrica (2005).

4.3. Objectives, Works program (work plan) and Execution

The paper finds that Murton's extension program planning procedure involves goal setting. It also enables extension service work systematically and according to plan which entails details about what, where, how, when, and by whom actions should be done (Gregory, 1986). It is during this step that extension service must keep records of the actions taken, etc for future evaluation processes (Murton, 1965; Gregory, 1986).

4.4. Evaluation and Reconsideration

Murton (1965) noted that in the light of the evaluation results, the program may in case of success, be repeated or replicated in new areas. In case some failures are realised, the program may be varied, diversified, altered or terminated. Paul (1983) noted this step as *maturity phase* of a program in which participants have three options, whether to continue, terminate or diversify the program.

4.5. Participatory approach

The paper finds that National Development Plan (NDP) 2030 adopts among others the *Cycle of Development as An Approach to Change* within which *Active citizenry* is one of the elements (Republic of South Africa, 2012). The Republic of South Africa argues that *active citizenry* among others may help drive development in a socially cohesive environment. However, Deshler and Sock as cited by Todaro and Smith (2006) argue that people participation should be much more than *active citizenry*, *pseudo* participation (people involvement without giving control to participants) and *manipulative* participation (people involvement for political interest or state's own agenda). The participation process should be authentic, genuine and interactive. Pretty (1995) tabulates types of participation in table 1 below.

Table 1: Typology of community participation in development program

Passive Participation	<ul style="list-style-type: none"> • People participation is limited to "to be told what is going to happen". • People's responses are not taken into account. • Information belongs only to external professionals.
Participation in Information giving	<ul style="list-style-type: none"> • People participation is limited to provision of information in response to questionnaires, surveys etc. designed by external agents. • Findings of the research are not shared with the people.
Participation by Consulting	<ul style="list-style-type: none"> • People participation involves consultation with local people. • They may take into account people's views during this process, but are not obliged to do so.
Participation for Material incentives	<ul style="list-style-type: none"> • People participate by contributing resources (e.g. labour) in return for food, cash or other material incentives. • Farmers may provide fields and labour but are not involved in the experimentation or the process of learning. • This is often called participation, but people have no stake in prolonging activities when the incentives end.
Functional Participation	<ul style="list-style-type: none"> • People participate by forming groups to meet specific objectives related to the project. • Involvement may be interactive but tends to arise later in the project cycle after major decisions have been made. • Institutions formed tend to depend on external facilitators, but may become self dependent.
Interactive Participation	<ul style="list-style-type: none"> • People participate in joint analysis, development of action plans and creation or strengthening of local institutions. • Participation is seen as a right and not only as a means of achieving project goals. • It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. • Local groups take control of local decision making and determine how resources are to be used giving them a stake in maintaining structures or practices.
Self-mobilization	<ul style="list-style-type: none"> • People participate by taking initiatives independent of external institutions or change systems. • They develop contacts with external institutions for advice and resources, but retain control of the use of resources. • Self-mobilization and collective action may or may not challenge existing inequitable distributions of wealth and power.

Source: Pretty, 1995

Murton's extension program planning procedure put extension worker in the front. On the contrary, participatory development approaches put the farmer in the front. Table 2 compares the level of farmers' participation between Murton's extension program planning and participatory extension approach.

Table 2: Murton’s extension program planning versus participatory development approach

STEPS	MURTON’S APPROACH	PARTICIPATORY APPROACH
Survey	Extension worker, senior officials, specialists and research workers conduct the survey.	Extension worker facilitates generation of information by farmers about their situation.
Analysis	Extension worker, extension committee and senior officials do the analysis and draw conclusions.	Farmers are assisted by extension worker to analyse their situation and draw conclusions.
Definition of problems	Extension worker defines the problems on the survey form.	Extension worker facilitates the articulation, definition and prioritisation of problems by farmers.
	Extension worker considers farmers as unaware of their real needs	Extension worker considers farmers as masters of their needs
Possible solutions to problems	Extension worker examines the problems and decides on possible solutions.	Extension worker facilitates identification of solutions by farmers.
Selection of objectives	Extension worker, Extension committee and Tribal Authority decide on the objectives.	Extension worker facilitates identification and prioritisation of the objectives by farmers.
Planning of work	Extension worker and Extension committee develop the plan of work.	Extension worker facilitates processes through which farmers plan their work.
Execution of the work program	Extension worker and senior officers know what is to be done, where, when, and by whom.	Farmers know what is to be done, where, when, by whom.
	Extension worker engages Extension committee and Tribal Authority as active actors.	Through linkage and facilitative models, Extension worker engages farmers with service providers.
Evaluation	Extension worker assesses at the end of season how much better the yield has become.	Extension worker and farmers assess the changes or outputs as a results of their actions.
Re-Assessment of the program	In the light of evaluation results, the general experience of extension worker, and with new condition, a new program is decided on.	In the light of evaluation results, and farmers’ realisation of new conditions, the farmers decide on the new program.

According to Novafrica (2005), one of extension goals is to *teach people about new farming ideas in their context and life situation, and how to identify and assess their own farming needs and problems*. The paper therefore finds that when extension service conducts survey alone without the people, it may not establish the required information. It should rather do it with the people concerned by asking them what they really need and what options they consider appropriate among options developed by researchers (Novafrica, 2005). Chambers (1994) noted that farmers may participate in survey through *participatory mapping and modelling* in which they make maps and models of their community, on the one hand, and *transect walks* along which they provide information about their area and its situation, on the other. Amongst the requirements of a good extension program, Gregory (1986) emphasises *“...plan with them and not for them”* that extension service needs to ensure participation of the affected parties in the planning and execution of the program. According to Drinkwater (1993 as cited by Chambers, 1994) farmers may participate in the need analysis, selection of solutions and prioritisation of objectives through *matrix scoring and ranking* in which they use matrices, seeds, etc to compare through scoring. Burkey (1993) also noted that participation is an essential part of human growth for it helps people achieve self confidence to take charge of their own lives and solve their problems. This approach also helps them develop some sense of responsibility and cooperation, and pride in what they initiate and create. Diale, Sefala, Phatudi-Mphahlele & Magogodi (2014) noted that when the intended beneficiaries of an extension program are excluded from participating in the planning processes, they become passive and less committed to the implementation and success of such a program, whereas when they actively participate in all the processes, such programs become more sustainable than when extension workers are in the lead.

From the results and discussions above, the paper learns that Murton’s nine steps are still applicable in the current extension services. However, a need to put the farmer in the centre of all the steps is imperative. The procedure needs to be made much participatory in approach than the way it was before. Figure 2 below displays the modified wheel which puts the farmer on the axis through which the farmer is linked to all the spokes.

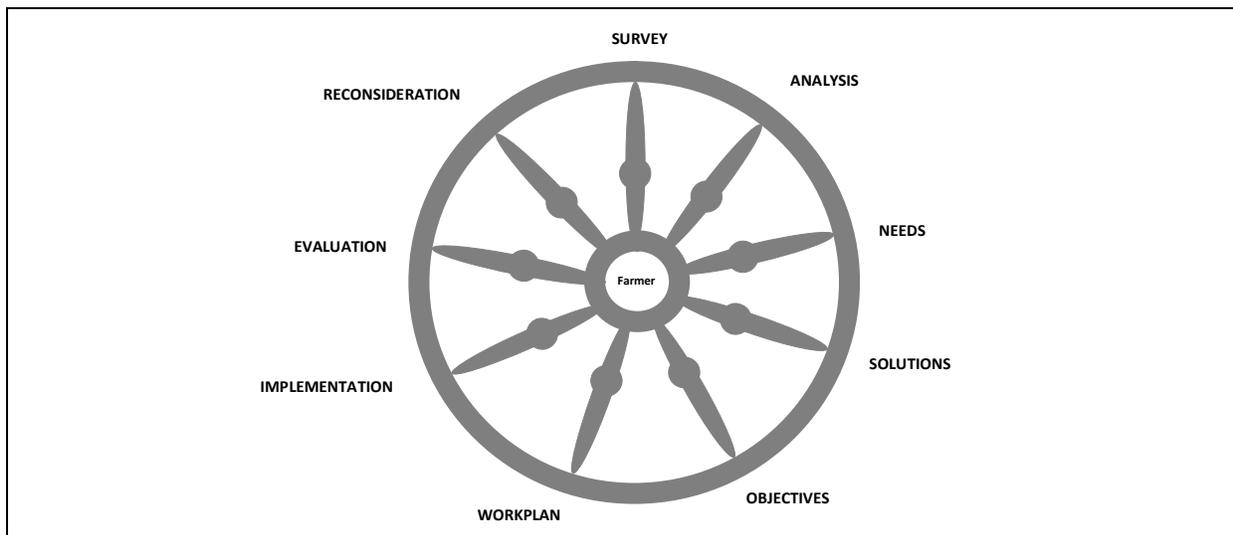


Figure 2: Participatory Nine Spokes of the Wheel

5. CONCLUSIONS, RECOMMENDATIONS AND EXTENSION IMPLICATIONS

The paper concludes that since the *Nine Spokes of the Wheel* was used by former government administration structures for approximately twenty years, it still can be applicable in the current extension services.

Murton's extension program planning procedure put extension worker in the front. On the contrary, participatory development approaches put the farmer in the front.

The paper therefore recommends that the tool should be modified to enable and encourage authentic, active, and effective people participation throughout all the steps of the procedure. This may enhance their attainment of self reliance and harness sustainability of the extension programs.

The paper also recommends that observance and compliance to extension procedures and norms be institutionalised or rigorously promoted in the extension services. This may provide the current public extension services with a systematic approach the services can use as their professional directive or guideline through which they may be able to justify or account for their professional extension actions.

REFERENCES

- BEMBRIDGE, T. J. 1991. Practical Guidelines for Agricultural Extension Services: A Field Manual. Halfway House; Development Bank of Southern Africa (DPSA).
- BURKEY, S. 1993. People First. London: Zed Books.
- CHAMBERS, R. 1994. The Origins and Practice of Participatory Rural Appraisal. *World Development*, 22(7): 953-969.
- DIALE, N. R. 2011. Personal Change for Effective Community Development. Temo News, E-Newsletter of the Limpopo Department of Agriculture, 11-17 November.
- DIALE, N. R. 2014. Nine Spokes of the Wheel poster. In Posters Corner, *The Informant*, January.
- DIALE, N. R., SEFALA, M. F., PHATUDI-MPHAHLELE, T. & MAGOGODI, P. J. 2014. People Participation in Limpopo Farmer Mechanisation Support Program in Sekhukhune District: A Comparative Analysis of Schoonoord and Moripane Cases. George: *Proceedings of the 48th Annual Conference of South African Society of Agricultural Extension (SASAE)*, 10-12 June.
- GREGORY, C. P. 1986. Agricultural Extension for Extension Advisors. Pretoria: Department of Development Aid.

- LIMPOPO DEPARTMENT OF AGRICULTURE. 2006. Strategic Plan 2006/2007: From Farming to Agricultural Industrial Development. Polokwane. Limpopo Provincial Government.
- MURTON, T. A. 1965. An Agricultural Extension Hand Book. Pretoria: Government Printing Services (L).
- NOVAFRICA. 2005. Orientation towards Participatory Extension Approach (PEA): Training Handbook. Centre for Innovation in Development.
- REPUBLIC OF SOUTH AFRICA. 2012. National Development Plan 2030: Our Future ó Make it Work. Pretoria: National Planning Commission.
- PAUL, S. (1983). Strategic Management of Development Programmes: Guidelines for Action. *Management Development Series No. 19*. Geneva: International Labour Office.
- PRETTY, J. N. (1995). Participatory Learning for Sustainable Agriculture. *World Development*, 23(8): 1247-1263
- TODARO, M. P. & SMITH, S. C. 2006. Economic Development. 9th Edition. Harlow: Pearson Addison Wesley.
- ZWANE, E. M. 2005. Participatory and Linkages for Improved Extension Delivery: An Experience from Limpopo's BASED program. Pretoria: *Proceedings of the 39th Annual Conference of South African Society for Agricultural Extension (SASAE)*, 10-12 May.