

NEEDS ASSESSMENTS IN EXTENSION: RESULTS AND IMPLICATIONS OF DIFFERENT ASSESSMENT METHODS

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ABSTRACT

The paradigm shift to more participatory approaches and the extensive use of PRA has emphasised the importance of needs, but has also led to more questions regarding the reliability and validity of the various methods. This paper compares different approaches of needs assessment in order to get a better understanding of their possibilities and limitations. The findings are based on a study conducted in Ganyesa, a rural district of the North West Province of South Africa, for which data was collected in three phases using different methods.

Evidence in support of the hypothesis, that problems and needs can be used interchangeably, was found in the highly significant correlation between respondents' importance rank order of identified problem and needs. From comparative observations of the spontaneity of responses regarding own problems and needs, it appears that these assessments are equally reliable and valid. Respondents also seem to find it easier to list the problems of the community than their own.

Needs are influenced very significantly by group interaction and they also change over time, as was shown by a comparison of assessments done at two year intervals. This has practical implications regarding the value of assessed needs and emphasises the importance of remaining sensitive regarding changing needs as situations change.

Gender, age and geographic location (service centres) were investigated as determinants having a possible influence on the individual's needs. The latter has by far the biggest influence and thus justifies separate need appraisals per community or sub-community.

1. INTRODUCTION

The problems and challenges facing agriculture and agricultural development in the developing world are tremendous (Laker, 1990, and McCracken, 1988). For extension this all emphasizes the need for a priority-oriented, purposeful, effective and efficient approach, which essentially must be focused on the land user whose behaviour or management is critical for sustainable production. It is in this context that needs and their identification are

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important and have been regarded as a vital component of development programs focused on rural communities (Bembridge, 1991, and Röling, 1988, & Van den Ban & Hawkins, 1988). The paradigm shift towards a stronger focus on the client (Chambers, 1983 and Cernea, 1991), and corresponding participatory approaches, has, in particular, contributed to a general awareness of the key role of needs, but also to a widespread and often uncritical use of PRA and other techniques or methods (Butler & Butler, 1987).

The nature of human behaviour and the consequent tendency to organize actions and behaviour to satisfy needs is fundamental to human existence and can probably be traced back to the phenomenon that human behaviour is -- with perhaps the exception of affective behaviour -- intentional and purposeful. This purposefulness can be related or associated with an underlying need to achieve any identified purpose or goal. It is only because of an existing need, that a person can have a goal, or that the goal appears attractive or assumes a 'positive valence' (Lewin, 1951) and is worth pursuing. In this sense a goal or purposeful behaviour is the means through which a need can be realized. This emphasizes the importance of needs and explains why goals or objectives can be regarded to be synonymous with needs (Düvel, 1994).

There are numerous interpretations accorded to the concept "needs". Examples include drives, aspirations, motives, incentives, goals, objectives and problems (Düvel, 1982). They are often used synonymously and at times interchangeably. It is, however, noteworthy that there is a natural interdependence between needs and related concepts. The 'driving forces' of behaviour are located within the individual and encompass the basic and fundamental needs, which can also be associated with those identified and described by Maslow (1964). The pulling or traction forces are more environment-located and include aspirations, goals and objectives. Problems can also be regarded to have a need dimension, because the motive or immediate goal of an individual being confronted by a serious problem is normally to overcome that problem. Problems and needs are, therefore, closely related. The close relationship is also apparent from the widely accepted definition of a problem, as being the discrepancy or difference between the current situation ('what is') and the desired or optimum situation ('what can be'). Perceiving the difference between the current and desired situation is equated with awareness of a problem or need, with the scope of the discrepancy or difference representing the scope of the problem or the need tension (Düvel, 1980).

In view of the above it can be stated that behaviour change is, without finding a link-up with needs, hardly possible. Needs are decisive in behaviour change and in development programs, but whose needs are we talking about or are important?

In a development situation the change agent and target community do not necessarily share the same view regarding problems and their priority. The concepts 'felt' and 'unfelt' needs refer to the needs as perceived by the community and change agent respectively (Rothman & Grant, 1987). The relative importance of these respective needs depends to some degree on the accepted development philosophy. In a promotional approach the 'unfelt' needs are likely to be regarded as decisive, with the 'felt' needs serving the purpose of linking with the community and leading them towards accepting the 'unfelt' needs as their 'felt' needs. For this to be the case, there should ideally be compatibility between the so-called 'felt' and 'unfelt' needs. In the event of this not being the case, it would be advisable to address the felt needs first.

On the other extreme of the continuum are certain participatory approaches that view the 'felt' needs as the only needs that matter, with the purpose of development being to assist the community in realizing its 'felt' needs.

The assumed hypotheses for this study emerge from the above and are as follows:

- (1) In needs assessments the concepts of needs and problems can be used interchangeably.
- (2) In the expression of needs the respondent is significantly influenced by group interaction.
- (3) Needs are time and situation specific.

2. RESEARCH METHOD

The study was conducted in the Ganyesa District, which is located in the North West Province of South Africa, and is an area that is regarded as marginal with extensive stock production being the major enterprise. Data for the study was obtained in three phases:

- a) *Analysis of a structured benchmark survey on stock production.* This survey was conducted in 1996 by the Department of Agriculture to serve the

purpose of identifying stock production problems and establishing a data bank and benchmarks in that regard. The survey included 600 respondents drawn as random samples of approximately 10 percent from extension areas of the entire District.

- b) *Individual semi-structured Interviews.* Using the respondent list of the 1996 survey, an up-date was done in 1998 of the livestock farmers still operational. Six easily accessible service centres were selected for this purpose. Using the up-dated list of previous respondents, 10 respondents were randomly selected from each service centre.
- c) *Group Surveys.* At each of the six previously selected service centres, two group surveys were conducted. They consisted of (i) stock farmers, i.e. a combination of the original respondents and new respondents, and (ii) community members. The latter consisted of groups of 20 respondents, representing a cross-section of community members, randomly selected from the operational area of each service centre. The Nominal group technique and the Delphi technique were applied in both group survey sessions.

3. RESULTS

3.1 Needs versus problem identification

One of the concepts frequently associated with needs are problems, and the question arises as to whether they can be used interchangeably. If this is the case, assessments using these two concepts should not differ significantly.

Table 1 presents a comparison of two ranking lists of needs and problems expressed by groups in a community. The importance of the various needs and problems are indicated by weighted percentages. According to these findings the similarity between the need and problem rankings is conspicuous. Water is the highest priority on both lists, while eight out of the first ten items appear on both lists. A further indication of the similarity between the rankings is that the position of most items lies more or less in the same range. Additional evidence supporting the similarity is the highly significant correlation ($r = 0.908, p = 0.005$) between the two rankings.

The similarity between needs and problems is also reflected in the responses of individual farmers included in the semi-structured survey. In this instance there was a clear resemblance in the case of 57 percent of the individual

respondents, and this in spite of the fact that the two different questions probably created the impression that different responses were expected.

Table 1: The importance rank order of needs and problems as expressed by respondents in group situations (N = 120)

Rank order	Needs	Weighted %	Problems	Weighted %
1	Water	23.177	Water	17.348
2	Electricity	11.753	Stock theft	9.242
3	Telephones	9.076	Telephones	7.500
4	Roads	7.222	Camps	5.909
5	Camps	6.959	Grazing land	5.833
6	Clinic	6.040	Bush encroachment	5.303
7	Grazing land	5.975	Middle school	4.924
8	Middle school	5.515	Electricity	4.621
9	Training	4.070	Training	4.393
10	Fences	3.677	Clinic	4.015
11	Funds	3.677	Transport	3.787
12	Crèche	3.217	Administration	3.484
13	Transport	1.707	Diseases	3.484
14	Unemployment	1.444	Fences	3.030
15	Earth dams	1.247	Roads	2.272
16	Police station	1.181	Earth dams	2.272
17	Rangers	0.853	Overgrazing	1.893
18	Vet. Services	0.722	Arable land	1.515
19	Diseases	0.590	Unemployment	1.363
20	Bulls	0.459	Poisonous plants	1.287
21	Soil erosion	0.459	Crèche	1.287
22	Stock theft	0.459	Tribal conflict	0.681
23	Drought	0.459	Supplements	0.530
24	Extensionist	0.394	Police station	0.454
25	Arable land	0.328	Tractors	0.378
26	Post Office	0.262	Drought	0.151
27	Community Hall	0.131	Credit	0.000
28	Bush encroachment	0.000	Rangers	0.000
29	Administration	0.000	Vet. Services	0.000
30	Overgrazing	0.000	Bulls	0.000
31	Poisonous plants	0.000	Soil erosion	0.000
32	Tribal conflicts	0.000	Drought	0.000

As far as the most important problem, namely water, is concerned, it is noteworthy that only 18 respondents listed it as their most important problem. This means that even the most important problem does not provide a wide basis of consensus to serve as a sound point of departure for a development program. The consensus could even have been less if respondents were to specify the need or problem in more specific terms.

Unless this is an isolated case, these findings could have implications for the normally unquestioned value of needs assessments related to only the 'felt' needs. What these findings do indicate, is that the assessment of problems is an acceptable alternative to the normal need assessment. It could even be a better alternative, if respondents found it easier to respond and if the response was likely to be more reliable. This is further investigated in the next section.

3.2 Time and nature of response

An indication of the reliability of responses could be the spontaneity with which the needs or problems are expressed. The assumption is that a spontaneous reaction is an indication that the individual has previously thought about the issues, that he/she is conscious of them and is not busy articulating something that he has never thought about previously. Against this background and assumption an assessment was made of the nature of responses (degree of spontaneity) regarding questions relating to needs and problems as they pertain to the individual and as they are perceived to pertain to the larger community.

Table 2: Frequency distribution of respondents according to the nature of their response regarding needs and problems pertaining to them as individuals and to the community

Nature of response	Respondents per response category							
	Individual				Community			
	Needs		Problems		Needs		Problems	
	n	%	n	%	n	%	N	%
Spontaneous	29	56.9	26	54.2	27	54.0	32	62.0
Semi-spontaneous	18	35.3	17	31.2	17	34.0	14	29.7
Hesitant	4	7.8	8	14.6	7	12.0	5	9.3

According to the findings in Table 2, there is, based on the nature of response, no evidence indicating a difference in reliability regarding the expression of needs and problems. It does appear as if respondents find it easier to list the problems of the community than their own. This could be an indication that it

is more reliable and, also better from a consensus point of view, to base the assessment on respondents' view of the community's problems rather than his/her own.

3.3 The influence of group interaction

The value of groups for quality decisions and the generation of new ideas is well known. In view of this, there is reason to believe that the group situation may also be particularly useful and appropriate for need assessments. The group interaction as provided for by the Delphi technique allows for a comparison of views and a voluntary alignment behind those individuals who are better informed, have a better insight or more superior views or ideas.

During the survey the needs of individuals were obtained and recorded. Subsequently an interaction was allowed within the groups, and after that respondents were again requested to give their personal view regarding the rank order of needs. The differences or degree of change between the views before and after group interaction are summarized in Table 3.

Table 3: Frequency distribution of respondents according to number of corresponding needs before and after group interaction

Number of corresponding needs	No. of Respondents	Percentage Respondents
0	18	22.2
1	29	32.6
2	23	25.8
3	13	14.6
4	3	3.4
5	3	3.4
Total	89	100

$S = 1.250$

These findings (Table 3) indicate that the rankings of needs before and after group interaction varied considerably. Only three respondents (3.4 %) were not influenced by the group interaction and only 21.4 percent of the respondents retained more than half of the initially expressed needs. The percentage respondents retaining less than half of their initial list of five needs after group interaction is more than 80 percent. 22.2 percent of the respondents were influenced to such a degree by the group interaction, that they changed their opinion regarding the need ranking completely.

Further evidence of the significant influence of interaction on the rank order of needs can be found in the ranking of the most important problem, namely water. Figure 1 shows rank positions of water before and after the group interaction.

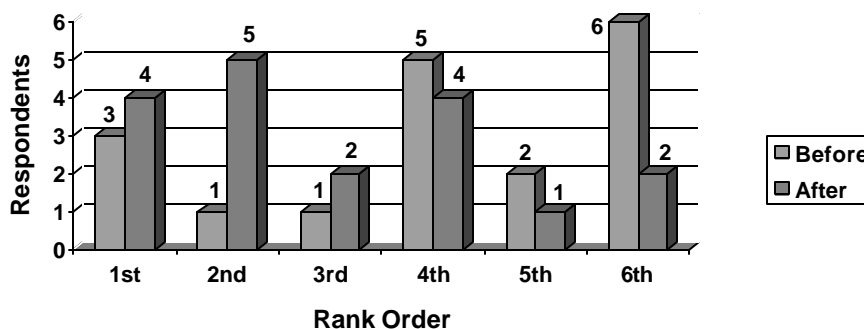


Figure 1: Bar chart showing the ranking of water as a problem before and after group discussions

The findings clearly show that the group discussion has increased the overall ranking and thus importance of water as a problem among the 18 respondents that had listed it as a problem. Initially only 5 respondents listed water among the first three positions, while in the second listing this number increased to 11. Using weighted values as an indication of importance, water increased from a value of 53 to 73 or, when expressed as a percentage, from 49.1 to 67.6. This again demonstrates the role of group interaction in changing or adapting respondents' needs and also in establishing a bigger degree of consensus.

It is not clear to what degree respondents' change in opinion was due to a better insight or to group pressure. The latter might have been a factor and this would suggest that there is a real likelihood (danger) for individuals to be dominated by others during PRA exercises. These findings also demonstrate, the tremendous potential of group interactions as a tool for finding a bigger basis of consensus or for need reconciliation.

3.4 Effect of time

It is commonly accepted that needs are time specific and can change drastically from one situation to the next. If this is the case, it is important to establish how long the needs remain valid, before they have to be reassessed. This study made provision for a comparison between an initial survey in 1996

and a later survey in 1998. Table 4 shows the degree to which the expressed needs changed over a period of two years.

Table 4: Frequency distribution of respondents according to the degree that their list of needs changed from 1996 to 1998

Degree of similarity between needs	N	%
Identical	2	3.5
1 st choice unchanged	8	14.3
1 st choice within first three rankings	11	19.6
One need still on both lists	11	19.6
No similarity	24	43.0
TOTAL	56	100

These results leave little doubt about the changes that occurred in respondents' needs over a period of two years. Only two respondents did not change their needs at all, but as many as 82.3 percent demonstrated large scale changes to the degree that only one need on the original list was retained. This has practical implications and emphasizes the importance of remaining sensitive regarding changing needs as situations change. On the other hand, it poses a question regarding the value of large scale, time consuming, one-off assessments of 'felt' needs.

4. CONCLUSIONS

Although this research cannot claim wide representation and needs wider verification, the following preliminary conclusions appear to emerge:

- The appraisal of problems seems to be a valid and practical alternative to the traditional need appraisal. This is based on the similarity in content and spontaneity of response. Respondents might even find it easier to respond, particularly if requested to name the communities rather than their own problems.
- Need appraisals, particularly with wide participation, do not provide a broad basis of consensus and are, consequently, not always a sound basis of departure for development programs.
- Needs are time-specific, which emphasizes the importance of remaining sensitive to changing needs as situations change.

- The influence of most personal and environmental factors seems to be very limited in comparison with community influences. This appears to emphasize the social or community dependency of needs.
- Interaction appears to be one of the major factors having an influence on needs. Through group interaction needs can be changed, perhaps manipulated, making it a potentially valuable tool in the creation of consensus, which is often the precondition for successful community programs.

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