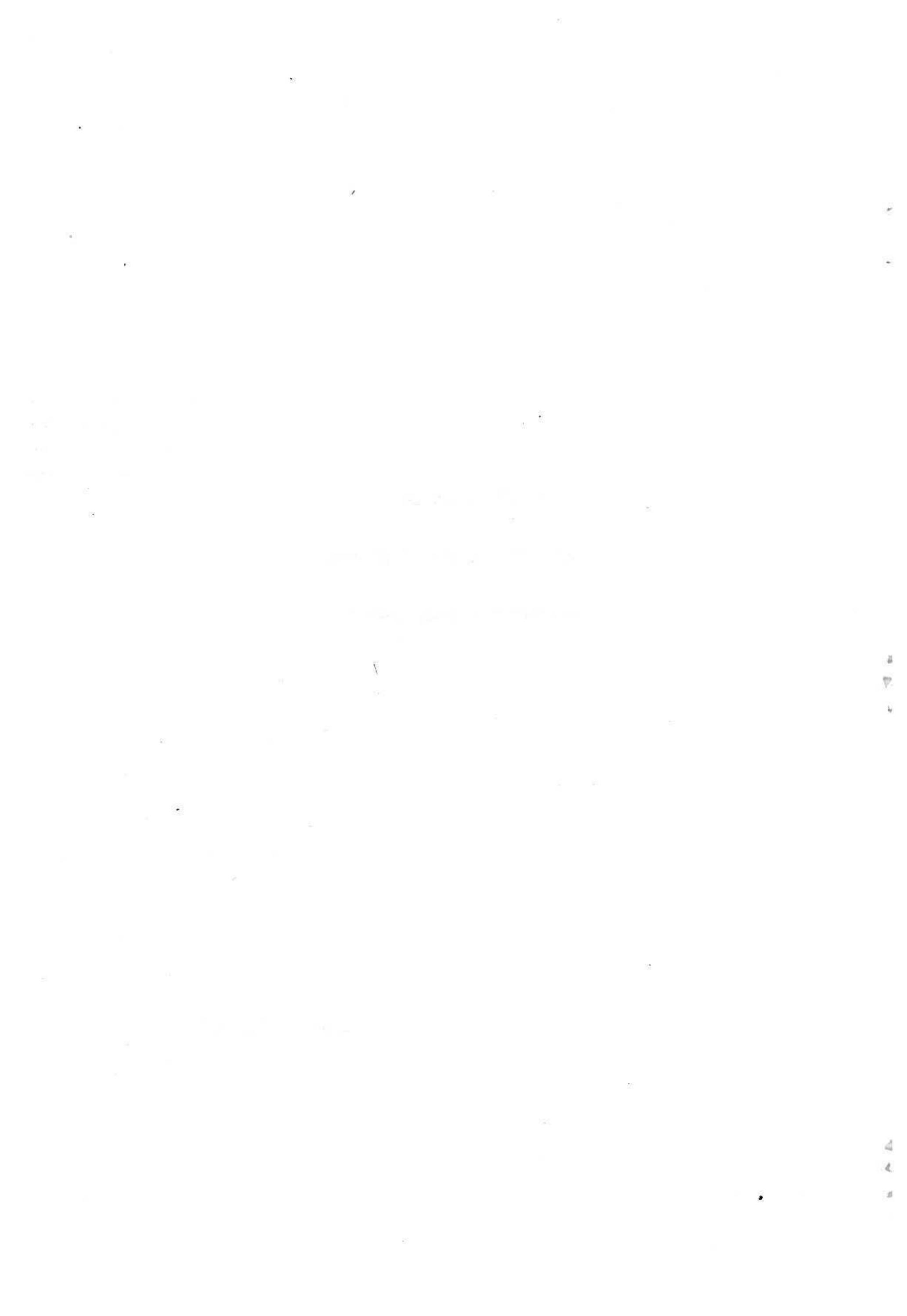


Evaluation Report 3.82

Village Agricultural
Programme — Zambia

AN EVALUATION OF
VILLAGE AGRICULTURAL PROGRAMME -
NORTHERN PROVINCE, ZAMBIA

Lusaka/Oslo 1982



P R E F A C E

The VAP Evaluation team has during the period 15th October - 14th November carried out a study tour in VAP areas, Northern Province and has since written the following evaluation report.

Terms of reference for the evaluation is attached in Annex I.

The programme of the team and people met are attached in Annex II and III.

The team consisted of:

1. Mr. Changa, Acting Chief Farm Management Officer, Department of Agriculture.
2. Mr. S. Muchindu, Economist, MAWD
3. Mr. C.I. Størøy, Provincial Land Use Planning Officer, Eastern Province.
4. Ms. L. Bergdahl Thalén, Nutritionist, Sweden.

The fifth member, Ms. M. Jørstad, Social Anthropologist, Norway, met with the team in Northern Province when on another assignment and completed her part of the report 15th December according to the contract.

Mr. E. Eriksen, Rural Sociologist VAP, Coordinated the study and the report writing. He was also responsible for the final report and the liaison between the various team members.

Bergen, 15th December 1982

L. Changa

M. Jørstad

E. Muchindu

C.I. Størøy

L. Thalén

E. Eriksen

C O N T E N T S

The present Evaluation Report follows the paragraphs listed in the Terms of Reference (Annex I) p. 135

Main recommendations p. 4

The strategy of the Village Agricultural Programme p. 7

VAP and the Zambian Agricultural Administration p. 65

The Impact of VAP p. 81

Appendices P. 135

Annex I Terms of Reference

" II Program VAP Evaluation Team

" III People seen and interviewed

" IV Primary health care and nutrition monitoring

" V Cash income from hybrid maize/citemene

List of abbreviations.

AA	Agricultural Assistant
A/C	Area Co-ordinator
AFC	Agricultural Finance Company
AHO	Animal Husbandry Officer
ARPT	Adaptive Research Planning Team
CD	Commodity Demonstrator
CDA	Community Development Assistant
CHO	Crop Husbandry Officer
CRP	Chief Regional Planner
DAO	District Agricultural Officer
DES	District Executive Secretary
DG	District Governor
FMO	Farm Management Officer
GRZ	Government of Zambia
HA	Health Assistant
IRDP	Integrated Rural Development Programme
IDZ	Intensive Development Zone
Kw.	Kwacha appr. N.kr. 6,70
MA	Medical Assistant
MAWD	Ministry of Agriculture and Water Development
MCS	Multipurpose Co-operative Society
MOH	Ministry of Health
NCU	Northern Co-operative Union
NORAD	Norwegian Agency for Development
NP	Northern Province
NRDC	Natural Resources Development College
NWP	North Western Province

T Ox trainer
AO Provincial Agricultural Officer
EO Provincial Executive Officer
J Planning Officer (Provincial Land Use Planning Officer).
AA Senior Agricultural Officer
+ Station Handyman
IDA Swedish International Development Agency
TRP Soil Productivity Research Programme
J Tractor Driver
AP Village Agricultural Programme
PC Village Productivity Committee
/C Women's Club

Main Recommendations.

In the Team's opinion the following recommendations are seen as preconditions for the planned expansion of VAP to new areas. If VAP is to fully carry through the objectives in the already existing VAP areas the same recommendations apply.

1. The complexity of VAP strategies for rural development makes thorough planning and monitoring necessary.

The VAP Co-ordinator who is responsible for this important work, is at present too much engaged in petty administrative/purchasing tasks and is therefore not able to carry out the above mentioned objectives.

In order to strengthen his capacity the engagement of a NORAD Administrative/Logistics Officer is strongly recommended. Without such strengthening of the headquarter staff it is doubtful whether an expansion of VAP is recommended at the present moment.

2. At the time of the Evaluation 2 out of 3 VAP areas were without Area Co-ordinator. (NORAD volunteers). The areas in question were suffering accordingly in term of lack of monitoring, advice and transport. One area had been without an Area Co-ordinator for nearly half a year although it was well known to NORAD about the vacancy.

It is strongly recommended that NORAD start recruiting new Area Co-ordinators well ahead of time to secure overlapping and jobtraining for these important positions within the VAP administration.

3. The Team recommends that the present system of release and control of funds should continue.

Over time, however, plans and action should be taken to re-integrate the Programme in the Zambian Government structures. The re-integration should not start at the Provincial level as the original plans were, but rather at District and Area/Village level.

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4. Possibilities to conduct proper socio-economic Monitoring/Evaluation should be strengthened. Being relatively small, VAP is probably one of the few programmes where the processes of rural development can be monitored.

The Team recommends that this task is given high priority both with expatriate and Zambian staff. Courses in methods of reporting and follow up should be arranged at camp and area level. The Rural Sociologist should be allocated a small staff of enumerators/assistants for the purpose of collecting socio-economic base-line data.

Plans and action for a nutritional monitoring should be made to follow up the objectives in the Agreement. This monitoring should be integrated with the local Primary Health Centers and be conducted 4 times a year in each area. NORAD should engage a Nutritionist to coordinate the nutritional monitoring and compile the data. (see also recommendation 5A).

5. Strategies to reach the much neglected target group - the women - are emphasized in the Agreement and several reports. One such strategy is to offer free fertilizer/seed for one year to individual women. However, many women disappear from the list of farmers the consecutive years either because their husbands take over their fields or because they can not afford to buy new farm inputs. Another strategy has been the Women's Clubs approach. Communal agricultural production in order to raise money for other activities (mostly sewing/knitting) has been central. The success of these clubs is rather doubtful. Constraining factors found within the socio-cultural context of the household or lack of time for such activities are the main reasons for the lack of success.

Other strategies likely to be more efficient to reach the women are recommended by the Team.

A To arrange ongoing nutrition classes in the villages. These should be organized in such a way that:

- I Everybody can participate (also men).
- II Generate knowledge/information about nutritional problems in order to plan further activities.
- III People's own problems are identified.

The Team also recommend an other strategy which will directly influence the women's situation pertaining particularly to their work load.

Water development in the VAP areas in the past have been planned and implemented rather casually. In order to make these VAP activities more efficient and thereby directly influence the work of the women, a Water Programme is recommended by the Team.

The Water Programme should have a separate budget and operate as a separate unit within VAP. Thorough feasibility studies in the villages have to be carried out before the actual number and siting of the wells are decided. Water surveys should be done for each area ahead of time before implementation.

THE STRATEGY OF THE VILLAGE AGRICULTURAL PROGRAMME

1.1

Describe the development of the VAP strategy as it has been modified during the project's existence, also giving the reasons for the modifications.

The Background

During the negotiations with Zambia in 1974, it was decided that Norwegian aid to Zambia should also be allocated to agricultural and rural development programmes.

In November 1974 a preliminary survey was carried out by a group from NORAD concerning the abovementioned aid. The team has not been able to find the written report from the survey team, but according to later reports (1,2) there seems to have been a recommendation of support to programmes in the Northern and North Western Provinces.

Zambia was to specify the request in terms of type of projects, locality, costs and detailed plans for the implementation of the programmes.

In the mid 70's, nearly all rural development and agricultural projects in Zambia, were settlement schemes. The only exception of importance was the IDZ Intensive Development Zone, later to be renamed IRDP, Integrated Rural Development Programme in Eastern Province. It was therefore only natural that the Zambian Government requested financial aid to run and bring into functioning some illfated settlement schemes in N.P. and N.W.P. 5 of these were to be in N.P. and 3 in N.W.P.

The number of settlement schemes in N.W.P. was later reduced to 2 and the agreement for financial aid to Jiwundu and Nyangombe settlement schemes in N.W.P. was signed in December 1977.

In N.P. the projects originally requested were changed and instead a request for aid for a totally different programme was put forward. The support to the 5 settlement schemes was therefore abandoned and changed to request for aid to a village agricultural programme (VAP).

The main differences between these two programmes are:

Settlement schemes

1. Moving village farmers to new, unused land.
2. High capital costs involving roads, schools, hospital, offices, workshop.
3. High running costs involving stumping, clearing of new land (tractor) and subsidies of farm inputs to the new settlers.
4. Individualistic "progressive" farmers as target group.

Village agricultural Programmes

1. Initiate and implement the Programme within already existing villages and village organizations.
2. Lower capital costs, since roads, schools, clinics and the like are (or should be) within reasonable distance from the villages.
3. Lower running costs, mainly for subsidizing farm inputs and transport.
4. The whole village farming community as a target group.

It is uncertain how this change from a settlement scheme strategy to a VAP strategy came about. One or two NORAD personnel working within the agricultural sector seem to have been the initiators to VAP. The Zambian government was consequently asked to make detailed plans for such a programme.

The development of the VAP model 1976 - 1982

Original plans

The original VAP proposals were drafted in 1976 by a programme committee chaired by the P.A.O. for N.P. with a NORAD planning officer as secretary.

The committee consisted of provincial technical officers and technical officers from IDZ (later IRDP) in N.P.

Two draft proposals (April and June 1976) were presented to the District Development Committees in Isoka (VAP was originally to start in this district

but this was later changed to Kasama East) and Mbala. The proposals were approved during 1976 and -77.

It is interesting to note that the attention is still kept on a settlement scheme strategy. The authors seem to have exchanged the word settlement scheme to village agricultural programme.

The target group is still the "progressive" future commercial farmer. Great emphasis is laid on land tenure and demarcation of farms, and consists mainly of agricultural components.

The final paragraph says though:

"Contrary to previous settlement schemes, this Programme will assist in developing the home areas of the people. If the Programme for some reason is cut gradually or suddenly the village people are left in their home environment facing the difficulties they got used to before the Programme started."

According to the two very similar draft proposals the Programme should consist of the following projects:

1. Processing and Marketing Project.
2. Draught Power Project.
3. Farm Implements and Transport Project.
4. Farm Requisite Project.
5. Residential Housing Project.
6. Horticultural Project.

The Programme was planned to be administratively and financially fully integrated in the Zambian agricultural administration. The proposal does not make any clear definition of who is to be overall responsible for the Programme, but it is most likely the PAO. Different Provincial Technical Officers are each responsible for the different Projects. (f.ex. Animal Husbandry Officer, Agricultural Engineer, Farm Management Officer,

Building Foreman, Horticultural Officer etc.). Agricultural Camps are to deal with daily extension services.

However, nobody is mentioned as the daily administrator of the Programme.

Summary

It is quite clear that the "VAP model" from the proposals 1976, is more like a classic settlement scheme model, although it is supposed to be introduced in already existing villages.

Reasons for this are:

- a) The target group is the progressive farmer.
- b) Land is to be stumped and cleared, and tenure rights should be held by each farmer.

Land should be demarcated "at the outskirts of the village".

- c) Ox draught power seems to be a requisite for all farmers.
- d) Subsidies are to be given on farm inputs, oxen, and ox implements.

The Programme was totally integrated within Department of Agriculture with no separate administrative body.

Developments 1977

In the proposals 1976 it was suggested that a VAP Committee chaired by the Permanent Secretary with the NORAD Planning Officer as secretary should be established.

The first meeting took place in Kasama 17 January 1977.

The NORAD Planning Officer seemed to have been allocated some responsibilities as to the daily running of the Programme. This was later (1978) to be formalized in such a way that he was to work part time (50%) as Planning Officer and part time as VAP co-ordinator. To help him in the field a NORAD volunteer settled in a new house at Senga Hill and had supervision over the two areas selected for VAP activities.

1. Senga Hill/Nondo in Mbala district.
2. Kayambi/Makasa in Kasama East district.

Already at this early stage some problems stemming from the departmental integration had developed.

The use of vehicles purchased under VAP budget had only been used by VAP 3,1% of the total kilometres. The rest had been departmental transport (including to Lusaka). The same applied to use of petrol. Of the Kw 2.500,- budgeted only Kw 100,-/200,- were used on VAP duties. In fact VAP activities were brought to a stand still for a period because of lack fuel. (See Minutes from 1st VAP Committee meeting).

VAP (contrary to IRDP) was therefore vulnerable at this early stage to misuse of funds and vehicles. These problems were to reappear and grow the following years.

Misuse of VAP vehicles also dominates the 2nd VAP Committee meeting 1st February 1977 (see Minutes).

The first selection of 5 villages took place in 1977.

The first VAP policy statement (or model) was presented to the Committee on its 4th meeting 4th October 1977.

The Policy statement had been worked out by Extension Training Officer, the Rural Sociologist, the Provincial Planning Officer (NORAD) and the Volunteer.

The basic set up of these policies has been maintained up to now. There has, however, been changes in contents and strategies over time.

The policy statement is divided into 3 different fields of activities:

- a) Activities concerning the selected villages
- b) Activities concerning the individual
- c) Activities concerning the area

The different projects suggested in the 1976 proposals has now been converted into an integrated approach - an independent Programme.

Several factors can possibly account for this development:

1. Most of the members had administrative experience from the early days of VAP. Could some ill gained experiences in the past have revealed the danger of allocating funds to departmental officers in an administration having less governmental funds?
2. The endless discussion of misuse or wrong use of vehicles and petrol might have changed VAP from a Project oriented towards an integrated/independent Programme.
3. The technical co-operation with the Department of Agriculture seems to be more decentralized, from the provincial headquarters to district offices and agricultural camps. There are some points in the 1977 policy statement worth mentioning at this point.

1. Under "Selected Villages"

- a) Water development (wells/waterfurrows) concerns only the selected villages. People are paid for the digging.
- b) Subsidies on fertilizer and seed are 100% and are given to households.

2. Under "Individual"

- a) Assistance in the form of sprays, castation, tick grease is given for cattle, not only draught oxen. No subsidies were given, however.
- b) Ox drawn equipment is subsidized 50%.

3. Under Area

- a) Mostly infra-structure (Feeder roads, Marketing Depots). Depots are to be built wholly financed by VAP funds.

One important change has appeared judging from the Minutes of the 4th VAP Committee meeting (4th October).

The target group for subsidized farm inputs is no longer the registered "progressive" farmers, but "each household who has or prepares a field of one half of a hectare".

It was therefore only natural that many of these farmers were not registered since they had not used fertilizer the previous years and consequently had no commercial crops (see Minutes Point 3.1).

Developments 1978

1978 was a difficult year for the Programme and the personnel involved in it. The first Volunteer ended his contract and two new ones were recruited, one for Senga Hill/Nondo and one for Kayambi/Makasa.

They arrived in September to take up their duties, but unfortunately both decided to leave the country in January after 3 - 4 months service.

Many factors can account for that.

The security situation following the Rhodesia conflict became worse. A shooting episode in Kayambi involving NORAD personnel (among them Resident representative and Ass.res.rep.) made it even more dramatic for the Norwegians. Reduced budgets (kr 53.000,- out of kr 100.000,-) and late release of money (25 % in February and 25% in November) brought the Programme to a stand still at times. The difficulties with departmental use of vehicles continued.

The marketing system did not function. The first basal dressing fertilizer was transported to the depots as late as 18th January in spite of regular visits to Northern cooperativ Union's (NCU) offices by VAP Staff. Basal dressing as late as December - January has little or no effect on crops. Farmers from selected villages 1977/78 were paid as late as February and March 1979, much too late to buy new farm inputs for the season.

Confronted with such enormous problems the VAP staff seem to have lost faith in a Programme working under such conditions.

Following the Government decision to partly abolish its previous subsidy policy, (Reserve and Trust Land Development Subsidies Act 1972) it was

suggested from Lusaka (Technical Planning Committee) to give only 50% subsidies on farm inputs. The issue had to be thoroughly discussed before the 1979 selected villages were approached sometime in the first half of 1979. The VAP Committee, however, approved the 50% subsidy policy on its 7th meeting 18 January 1979).

Developments 1979

A new kind of yearly meeting/course was introduced this year. It was named VAP Evaluation course and was planned to take place in February/March each year. The purpose was to judge or "evaluate" the Programme performance and its policies from year to year. This evaluation is done by the local people concerned, together with VAP staff. The participants were at first (1979) the VAP extension staff (Agricultural Camp personnel) and local politicians (Ward Councillors, now called Ward Chairmen). Later (1982) representatives from the farming population were included among the participants. Contrary to the VAP Committee Meetings (Provincial level) the "Evaluation Course" acts as a grass root level forum for pinpointing problems and bring possible solutions to VAP performances and trends which are undesirable. Particularly it gives the VAP administration a chance to adjust its strategies before some undesirable trends have become irreversable due to strong interests by some individuals to maintain them.

On the other hand it also gives the VAP administration a chance to reinforce positive trends stemming directly as indirectly from the Programme.

The evaluation course, then, is part of a socioeconomic monitoring system designed to give information about the "state of affairs" of the Programme. Together with the flow of information coming from a report system which functions, it gives opportunities for a "tinkering" approach to socioeconomic monitoring and evaluation.

Recommendations reached at the various Evaluation courses are to be presented and discussed at the VAP committee meetings to reach official positive sanction.

The Evaluation Course 1979 discussed among other things:

1. Village selection procedures
2. The VAP subsidy policies
3. The marketing system

1. Village Selection, 1979

Of the original 13 criteria for first selection of new villages (see H. Hedlund 1978, p. 3), only 4 remain as criteria for selection. 3 of these criteria pertain to the motivation of the specific villages.

- a) Whether the village is re-grouped or not.
- b) Activities of the Village Productivity Committee. How many meetings, what subjects discussed, attendance.
- c) The amount of self-help activities in the village.
- d) Co-operation between households, with extension staff and with ward counsellors.

The emphasis on these 4 criteria only will more easily include not very centrally located villages. The former criteria 2 - 6 were now irrelevant. (Distance to NCU depot, to all-weather road, to shop, to primary school, to agricultural camp).

"Progressive" villages, which are termed progressive because of former use of fertilizers (Criteria No. 7), last year's sale of produce (Criteria No. 12) were given no advantage. Former use of fertilizer and sale of produce is often the result of contact with centrally located parastatals, Gov. administration, and markets.

Finally the irrelevance of Criteria No.10 (number of adult males) would now

give the large number of female-led households equal chances in the selection.

The final selection of villages 1979 took place on 3 different occasions with extension personnel and ward counsellors present.

2. The VAP subsidy policies

The suggested 50% subsidies on farm inputs were discussed. (Still given to households). Following the 1978 prices every farmer cultivating 0,5 Ha would have had to invest kr 19,50 if he was to cultivate maize. For other crops the investments were somewhat lower. (see E. Eriksen 1979 p. 5)

Many marginal farmers in the village community could obviously not afford to raise this amount of money for farm inputs. Marginal farmers would fall into household categories like divorced/deserted women/old farmers.

Faced with the option to pay for something they did not know the results of, there were 2 other options open to them.

- a) Not to participate.
- b) To use too little fertilizer by only receiving 50%.

The fruitful discussions at the Evaluation Course 1979 and later in the areas, happily led to the result that the Lusaka Planning Section was convinced about a continuation of a 100% policy for each participating household.

3. The Marketing System

Complaints pertaining to the performances of NCU were discussed. The irregularities and delays in delivering farm inputs in time and in payments for the farm produce were the main issues. These two issues are also a matter of discussion at every VAP Committee meeting. Strategies to avoid full dependence on NCU were looked for, since the impact of NCU's failure to provide proper services was very negative. Many farmers who would otherwise

continue farming on permanent fields, do not find it worth while to be dependent on a marketing system that does not function properly.

To be more independent (f.ex. by having own transport in case of need) and lay pressure on NCU officials to give priorities to VAP (and IRDP), were demands VAP administration realized the importance of during 1979.

Developments 1980

Extension personell

During the later part of 1979 VAP staff became more and more aware of the highly different quality and abilities of the extension personell in the Agricultural camps.

Unfortunately, due to the security situation, after the destruction of 2 bridges in N.P. it became literally impossible for white people to travel to Kayambi/Makasa along the Tazara Railway. Senga Hill/Nondo was also a difficult area.

The main problems concerning the extension staff came up.

- a) Reporting on the selected villages and other work programmes were often fabrications, false or confusing.
- b) Some camp staff members had utilized the time when no expatriate personnel travelled in the areas to misuse funds issued to them.

In a report (M. Jørstad 1980) a case study of the poor performances of one extension worker in one village is described. It became later evident that this case was not outstanding, lack of reliable data was the case in all but one of the 4 camps where VAP was working. Further more, there were serious cases of misuse of funds, and vehicles. Many farmers started also to complain.

The need for a certain control of the camp personnel became a most important issue.

VAP administration at this time was 1 1/2 staff. 1 volunteer on full-time basis, co-ordinator on part-time basis. (Also Provincial Farm Management Officer). In addition, although not officially, the 2 sociologists helped with the implementation.

At the same time VAP was supposed to follow up activities in 18 different villages in 4 different camp areas.

The abovementioned report argues for more expatriate personnel, particularly volunteers to follow up the work programmes in the field.

The presence of volunteers in each area could, among other things, possibly initiate the hitherto neglected secondary services to the farmers.

Secondary services are not purely agricultural services, but offers of transport to the villages of fish for fishponds, cockrels, rabbits, seedlings (coffee/citrus), building material etc.

Another important role of resident volunteers in the camps would be a certain control over allocated funds and vehicles (tractor/Hondas) and a certain supervision over the reporting on farmers' agricultural activities in selected villages.

Despite initial doubts, during 1980 NORAD Lusaka and Oslo, became convinced of the importance of more expatriate personnel allocated to VAP.

The Evaluation course 1980

The important issues were discussed at the Evaluation course this year in March were:

1. Should free fertilizer be given to households or to individuals.
 2. The role of selfhelp in the work Programmes.
1. The two sociologists working in the areas had revealed that there were many misunderstandings, rigidness and pure carelessness as to who received free fertilizer in the selected villages. See M. Jørstad 1980 A for an elaboration of this problem in one village at Senga Hill.

F.ex. second wives, young unmarried men, people too old to dig a full 0,5 Ha. were rejected because they were either not households or had not achieved the size of prepared field asked for.

These problems were presented on the course and explained to the extension staff. It was finally decided that any individual able and willing to dig up to 0,5 Ha. was eligible to free fertilizer the first year. The extension staff was to be lenient with people not physically able to clear that much land.

Whether or not all these individuals will continue using fertilizer and the followin years seems to be irrelevant. All farmers have been given a fair chance within this VAP strategy, and the land of later "drop outs" is after all cleared and will often be used by someone else. Other effects of this strategy are worth mentioning:

Young school leavers (f.ex Grade 7) are given opportunities to generate money for brideprice within the village community, and do not have to try labour migration to obtain cash.

Able, hardworking farmers can get fertilizer for every family member over 15 years of age, thus theoretically clear for himself, 1-2 wives and f.ex. 2 children altogether 2.5 Ha. Hard work will thus be rewarded and solve the difficult credit situation most peasant farmers are facing. By offering free fertilizer to the already motivated, "progressive" farmer only a great potentiality for misunderstandings, envy and witchcraft accusations would have been present. This potentiality was greatly reduced under the new VAP strategy of 1980.

2. Over the years of VAP existence allocation of funds were sporadic and often reduced. Consequently many work programmes in the areas were brought to a halt, since there were no money for salaries. It was discovered that a group of semi-professional "VAP labourers" were gradually coming into being. They relied a lot on salaries, digging wells and

waterfurrows, roads, making bricks and so on.

Furthermore, there were no interest by the villagers to maintain the various constructions, because it was seen as "Government property".

It was therefore decided to change the policy of paying people for all infrastructural work. More emphasis on self-help inputs was demanded, particularly on the village level. When the size and technical complexity made the project too difficult to organize on a self help basis, VAP would allocate funds also in the future. Most capital inputs were to be paid by VAP. The new principles were roughly:

Wells/Water furrows

Planning, demarcation by VAP.

Labour on self help.

Cement top, windlass, bucket paid by VAP.

Roads

Roads serving one village - self help labour.

" " several villages - partly self help partly paid by VAP (particularly bridges).

Depots

Small villages sheds and bigger village group depots. Burnt bricks on self help. Labour for construction, cement, ironsheets, beams etc. paid by VAP.

These principles (fertilizer to individuals and greater emphasis on self help) were later sanctioned by the VAP Committee.

It is interesting to note that the demand for self help met great reluctance in the 2 areas where VAP had formerly paid for infrastructural work (Senga Hill/Nondo and Kayambi/Makasa) while in the new area (Chitoshi/Mpalapata) where VAP expanded in 1980, there were no questioning as to self help or not.

The reason might also be the great interest and involvement the local Ward Chairmen in the latter area took in VAP implementation.

Developments 1981

1981 was a year of consolidation within the Programme. VAP had expanded to Chitoshi/Mpalapata in Mparokoso district and 2 new selected villages were to come within the orbit of VAP activities each year. At the ill-fated Senga Hill Station, where constant problems pertaining to dishonest and careless extension personnel, only one village was selected this year. The best Agricultural Assistant (AA) within VAP areas (at Nondo) was made Senior Agricultural Assistant (SAA), and became in charge of Senga Hill. Furthermore a Volunteer was stationed there as Area Co-ordinator.

In 1981 the main objective for the VAP administration was to bring the formerly selected villages back within VAP activities and extension. This effort of giving importance and follow up in the second/third year villages is still emphasized in 1982 and will be in the future.

On the national level the concept of Lima Programme had been introduced. It was a new extension approach for small farmers using Lima (0,25 Ha) as a basic unit. The local politicians (Ward Chairmen, Ward Secretaries) were to take active part in the extension of the Lima Programme.

Able and interested local politicians could therefore be valuable to VAP, a Programme which in many ways is similar to the Lima Programme.

By carefully involving the Ward Chairmen in VAP work there could be some advantages.

Having their political basis (votes) in a whole Ward (roughly an Agricultural camp area) they could act as communication channels between the VAP administration and the villagers.

Advantages could be:

- a) To motivate people to self help projects.
- b) Control the performances of the camp extension personnel (who are not local).
- c) Make the dormant Village Productivity Committees function. (Now called Section Development Committee).
- d) Use the Ward Development Committee as a forum for suggestion of VAP villages and work programmes (Later to be discussed at the Evaluation Course in March).
- e) If the Ward Chairmen were good, then VAP could gradually go back to the original and basic idea of decentralization and integration into the Zambian system (at least on the Party level).

The motivation for the elected Ward Chairmen/Secretaries is obvious. They could take the progress caused by VAP activities to their own political gain for the next election. The transaction between VAP and the politicians could therefore be a successful one.

The new Ward Chairmen (after the election 1980) seem on the whole to be more able and interested in VAP than the former Ward Councillors. (See H. Hedlund 1977 and Minutes 4 VAP committee meeting).

The Area Co-ordinators (the new title for the Volunteers) were in 1981 asked to cooperate closer with the local politicians.

The two main constraints facing the implementation of VAP policies, - shortcomings in connection with the cooperative marketing system (NCU) and the quality of extension services, particularly problems pertaining to personnel - were still imminent.

But due to more control, checking and pressure on officials, the situation was not so acute as in previous years. In the discussions among VAP staff (see below) new approaches were sought. Instead of improving the 2 systems by constant control, maybe there were other and more satisfactory means.

At every Evaluation Course camp personnel had complained about their welfare and working situation (bad houses, transport, workclothes etc.). These are problems which Department of Agriculture should solve according to the "Agreement". VAP had hitherto refused to do anything about that, since there was no budget for it.

However, in order to boost the morale among the camp personnel it was decided in 1981 to set aside funds for the general welfare in the camps.

Wore down houses were renovated and personnel were given overalls, raincoats, boots and the like to be able to do their work better. Bicycles were given on loan, and night allowances for overnight stays in the villages. The effect of these measures are difficult to assess at the moment, but it was felt as worth trying.

A nearer cooperation with NCU emerged through the fortnightly Co-ordination meetings between IRDP, VAP and NCU. At these meetings current problems were discussed as they became critical to the agencies. The effect of this measure is also difficult to assess at this moment. The only thing we know is that the marketing system functioned slightly better in 1981, and even better in 1982.

The efforts to provide secondary services to the villages and the emphasis on second/third year villages continued. Release of funds was still a problem.

Being subject to the administrative pipeline system in Lusaka (Ministry of Finance, Department of Agriculture) financial funds were allocated sporadically and were often reduced at the end of the year. This hampered VAP activities at regular intervals. Furthermore, to be inside this pipeline system also delayed seriously any new investments in imported capital goods. VAP needed desperately a new lorry and new Hondabikes for the extension personnel.

Opinion within VAP staff turned gradually towards a financial system partly independent of the national administrative system. There were many examples of such economically semi-independent arrangements within development aid organizations working in Zambia.

The German IRDP in N.W.P., the Swedish IRDP in N.P. and the NORAD water project in W.P. are cases in point. The request from VAP to NORAD/Zambia was to set aside foreign currency for import and put recurrent capital on a Zambian bank account. Cheques signed by the Permanent Secretary (Chairman of VAP Committee) and the VAP co-ordinator would release money as demand emerged.

This system came gradually into effect during the latter part of 1981.

Developments 1982

The Evaluation Course

The emphasis this year was on the extension services. The work had undoubtedly been improved, at least when misuse of funds was concerned.

But still extension workers were mostly geared towards technical advice on growing of maize and other commercial crops. The "problemoriented" kind of advice was still lacking in some camps. Problemoriented means an ability to listen to the small farmers and try to define their problems and possible solutions to these.

In order to make the extension services more efficient 2 measures were introduced:

1. To channelize the selection of villages. F.ex. not to select villages bigger than 100 participants.

If the selected village was bigger then it should be divided in two.

The lesson learnt from Makasa camp the previous year when the selected

village had over 250 participants and the control over the situation got completely out of hand for the AA was the grotesque example.

The principles pertaining to the selection procedure set forward were:

If last years selected village was big, then the village the present year should be small. The direction of the village should count, f.ex. not select villages in all different directions from the camp, but create clusters in one or two directions in order to reach them easier.

2. A certain division of labour among camp-personnel was suggested at the course. Some camps were now supposed to take care of 6 VAP villages.

Earlier the AA was in charge of all VAP villages, a task becoming increasingly difficult. The Commodity Demonstrators (CD) and some able camp handymen were suggested to help in the extension. The villages in all camps were made into clusters and the AA, the CD and sometimes the camp handymen were made responsible for extension work and reporting for one such cluster each.

The AA was to supervise the work.

The objective was as mentioned to make extension more efficient and particularly to reach the old villages, which in many cases had fallen back to the state they were in before VAP was introduced.

The report system was also standardized and simplified. In order to monitor the development in each village on the individual level, the report system would cover the situation:

1. The year before VAP selection
2. " " of " "
3. " " after " "
4. Two years " " "

"The VAP Problems" group

An informal forum for discussion of VAP policies and performances came into existence during the latter part of 1979.

The discussion group consisted of the expatriate personnel associated to VAP. The Volunteer, the Planning Officer, the VAP Co-ordinator and the 2 sociologists were members.

Practical problems popping up in the VAP areas and how to solve them were discussed.

Different strategies concerning rural development were often topics.

The main theme was generally how VAP policies successfully could be implemented and how recurrent constraints could be overcome.

These discussions took place fortnightly or whenever there were enough people around to make up a discussion group.

Conclusion

The VAP model has gone through a series of modifications over the years. In most cases these modifications were the results of the harsh realities of trying to initiate rural development in Northern Province as increasing constraints had been experienced.

Many of these modifications were therefore pragmatic solutions to recurrent problems, when implementation of VAP policies were concerned. Other modifications, however, were the results of rethinking the concept of rural development within the socio-cultural environment of Northern Province, simultaneously facing increasing administrative and economic problems on the national level in Zambia.

1.2

Discuss the relative importance of factors constraining successful implementation of VAP, and how they have been or may be overcome.

Based on the AGREEMENT, Article 1 that: Norway and Zambia will co-operate in order to increase the agricultural production and thereby improve the standard of living for the population in rural areas

the model in fig 1 has been constructed to show the interdependency between different resources within the Village Agricultural Programme. Certainly other models could have been constructed. The intention here is not to present any sophisticated analysis, but just to illustrate some of the most important resources and their mutual dependency. Negative factors constraining any of the systems described might hamper the development of the whole Programme, and consequently the aim to increase agricultural production.

The relative importance of constraints operating within each of the systems of resources might be difficult to judge.

In previous reports the Village Agricultural Programme in Northern Province certain issues are repeated again and again.

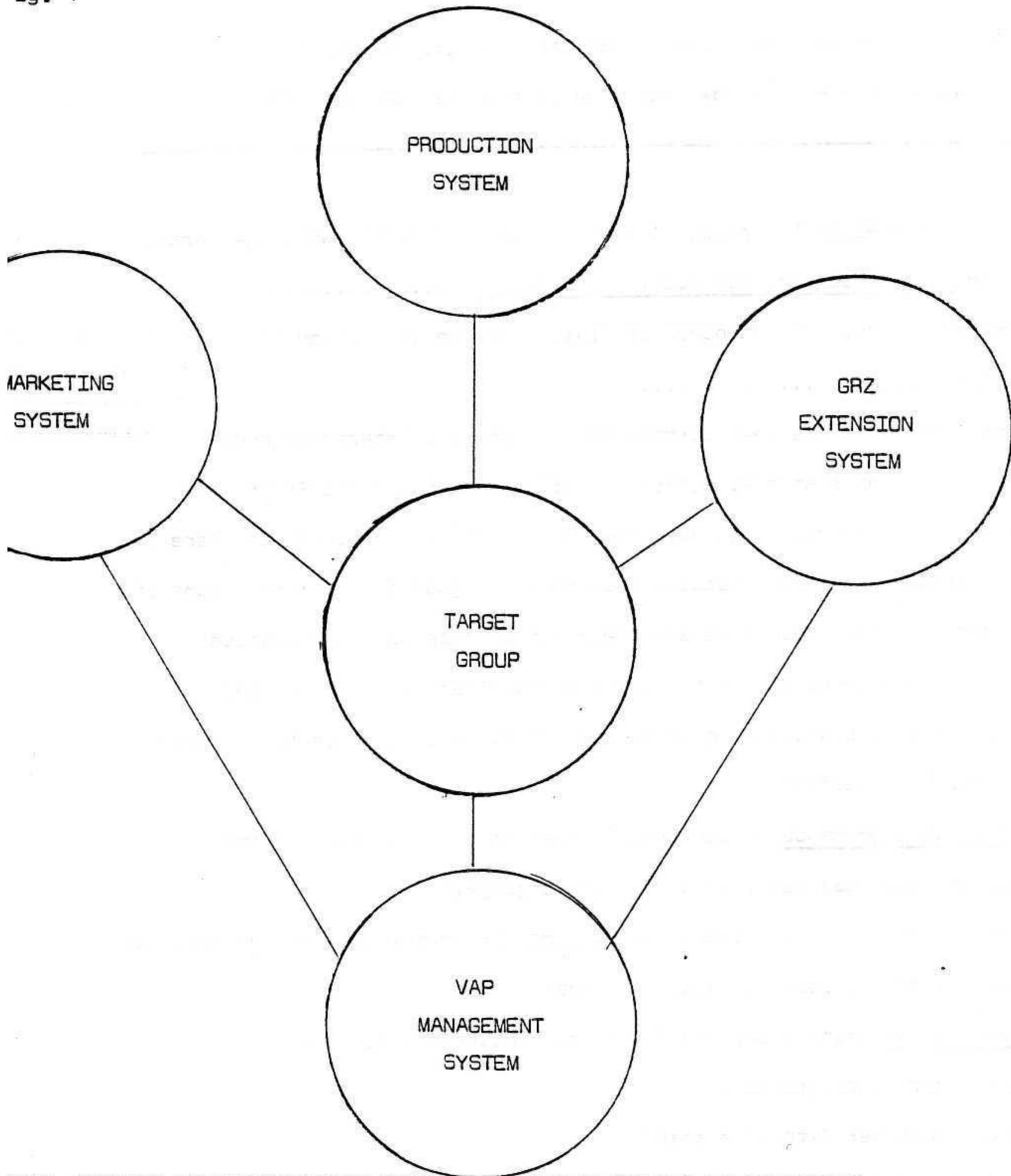
Hans Hedlund/78 pointed out the following constraints for the different part - programmes:

Village Programme: Extension staff

Area Programme: Marketing/distribution, depots and roads

Individual Programme: Lack of labour and draught power

Fig. 1



MODEL SHOWING INTERDEPENDENCY BETWEEN DIFFERENT SYSTEMS OF RESOURCES
WITHIN THE VAP-PROGRAMME

E. Eriksen et.al. /Feb. 81:

Extension crucial for VAP's possible success..

No provision for adequate supervision from the VAP-adm. in Kasama.

The central administration of VAP has been too small and inefficient.

Market: - to late arrival of fertilizer and seed

- maize waiting to be collected

- too late payments

M. Jørstad/March 81:

Transport and expatriate personell needed.

M. Jørstad/April 81:

Human factor/administrative staff.

One immediate reaction concerning the considerable efforts that previously has been exercised to pin-point the main problems within the Programme is if all this information has been sufficiently systematized and analysed.

The establishment of the VAP Evaluation Course in 1979 could be characterized as a forum to guide the management of VAP.

"A review of implementation experience over a year, tied with programming, can be an effective way of dramatizing and focussing attention on bottle-necks and problems" (Chambers/NA Uppsala 1974).

"The purpose was to judge or "evaluate" the Programme performance and its policies from year to year".

and

"The evaluation course, then, is part of a socio-economic monitoring system designed to give information about the "state of affairs" of the Programme. Together with the flow of information coming from a

system which functions, it gives opportunities for a "tinkering" approach to socioeconomic monitoring and evaluation." (Base line report p.14 and 15)

Without going into details, minutes available from conducted courses reveal that quite a lot of different problems have been discussed.

Following the recommendation by the Evaluation Course, changes in the policy has finally been accepted by the VAP-Committee, i.e. the issue of subsidized fertilizer for the 1st year "VAP- Village".

Shortly some bottlenecks which have been observed within the different systems shown on fig. 1 will be commented upon.

The production system.

Constraints within the Production System have hardly any relevance concerning promotion of the Area Programme.

To some extent of course ecological factors might hamper some developments, i.e. building of roads. Socia-economic constraints might also account for delays i.e. when it comes to self-help schemes.

From the Soil Productivity Research Programme it is quoted:

"The soils in the high rainfall area of Zambia is predominantly strongly leached sandveldt soils. They are usually sandy in the top soil, with an increasing claycontent downwards. They are acidic, and strongly weathered. The nutrientholding capacity and the nutrient reserves of the soil is low. These soils are generally considered to have good physical properties in their natural state, but many soil physical properties deteriorate with cultivation, rendering the soil less permeable and more susceptible to runoff and erosion losses."

And

"The effect of liming on the acid, leached out soils of the high rainfall areas is reported to be variable. It is therefore regarded important to obtain further knowledge about the effects of liming, especially the residual lime effect.

Utilization of lime from different deposits is of interest in these areas, and experiments should be carried out in order to compare the different lime types.

Acidity and a high content of dissolved aluminium in the soil may prevent plant roots from penetrating downwards. Liming into the subsoil might be of importance to enhance the root growth."

At the present level of farm management, however, a soil acidity is not the main bottleneck for improvement of yields in the areas concerned.

The structure of the soil and agronomical practices might be more important. It is noted that the SPRP advice that:

"Experiments should be carried out in order to obtain more knowledge about the importance of increasing the organic matter content in the soils."

Different methods of handcultivation for improvement of the soil structure might also be of interest to have investigated. Results from SPRP will be of important value for the VAP-villages if the extension staff concerned is given opportunities to forward the knowledge obtained from the conducted trials.

Scarcity of labour as a limiting factor in agriculture seems to vary from area to area in N.P. If it is accepted as a main constraint on agricultural development it is important to detect under which conditions and under which situations it is so.

The Marketing System.

In the present Evaluation there is found no reason to outline the issue of distribution of fertilizer/seed and marketing once again.

The problems here are well described by the above mentioned authors.

It should be noticed, however, that there have been considerable improvement by Northern Co-operative Union this year compared with earlier years' performance.

Although the final forecast indicates an almost 100 % increase in production of maize in 1982, from 328.000 bags in 1981 to nearly 645.000 bags this year, this quantity is now more or less collected. At the same time (4/11-82) 85 % of the fertilizer for the 82/83 season is distributed to depots around in the Province. This has been possible to carry out due to extra provision of transport this particular year as well as a possibly better organization of the collection- and distribution system.

Main constraints for NCU seems now to be:

- 1) Very few primary societies (Multipurpose Co-operative Societies) are in proper function.
- 2) Sufficient number of storage sheds (for produce and fertilizer) needs to be constructed to cope with the expected situation in 1983. This includes slabs near Tazara railway at different places, i.e. Makasa.
- 3) Certain relationships/dependencies on NAMBOARD have to be clarified/dissolved.
- 4) At present NCU have an outstanding handling-charge with GRZ amounting to annually Kw. 1.2 mill. This gives the organization little financial basis.

Travelling the VAP-Areas for almost 14 days at the end of October, the impression was that the information given by the management of NCU was correct. Most of the maize had been collected although still some heaps of bags could be noticed along the roads. Fertilizer was under distribution and hybrid seed was informed to have arrived. Payments of farmers for delivered maize were in some cases already done.

The GRZ Agricultural Extension System.

Generally the lay-out of the Zambian Agricultural Extension is considered to be quite elaborate. To match extension areas with the Political Wards, the establishment of Extension Blocks with main and subcamps is now under way. This is a systematical streamlining of the administrative organization and it should be well fitted to serve the farming community. However, what is lacking is "flesh on the bones". Well known problems like lack of funds, administrative inefficiency, usually no transport, poor housing and limited allowances dissappoint the staff to the extent that hardly any field work is undertaken.

At station and camp level within the VAP-Areas the number of staff and position is presented later in the report.

Problems facing the Programme, ability and performance of the extension staff has been thoroughly discussed in the evaluation reports of 1981. It was observed this time that the SAA and AA at Makasa just recently had been attached to the service there and could concequently give very limited information about extension within their area and VAP.

In Kayambi there still seems to be quite a difficult problem to get sufficient data concerning agricultural production in time.

At Chitoshi, as in Makasa, the SAA assistant was new in his job and at present completely depending on his Commodity Demonstrator. At the time of visit to that Station, they had no transport.

The AA's both at Mpalapata and Muyembe were, however, well informed, but being alone in their camps they had limited possibilities to reach all farmers.

Senga Hill/Nondo were best off concerning extension staff. There are at least two persons in each camp dealing with agricultural extension. The question is, however, whether they manage to give proper services both to the VAP-farmers and other LIMA-farmers.

In TOR, paragraph 1.4 c an assessment of the capacity by the extension service to follow up the Project in the second and third year villages is asked for.

Two interesting parameters to compare here would have been numbers of VAP-farmers contra LIMA-farmers outside VAP-Areas. Although the importance of correct information concerning LIMA-plots has been stressed for years now, by Dep. of Agriculture, hardly any reliable data were found.

The figures from Senga Hill might be trusted. A total number of 783 LIMA-farmers were belonging to the Programme.

At all camps. extension staff was asked how they managed to follow up the 2nd and 3rd year VAP-farmer. It was understood that his problem

has been given high priority by the management, and had been dealt with in the Evaluation Course. Generally it was told that classes were conducted followed by practical demonstrations for this group of farmers.

In the Senga Hill Area, the villagers had been briefed in two meetings.

On the demonstration plot allocated to one of the farmers, the first demonstration consisted of pegging of ridges, fertilizing and planting, the second of application of topdressing, and the third weeding.

Except for loanees in AFC, hardly any individual farmer receives special service by the extension staff. To cope with the situation, the villages in Senga Hill/Nondo Area had been divided between the different staff in the camps. Both the Area-Co-ordinator and the Zambian Extension staff had here the feeling that they managed to do the job they were supposed to. Concerning any difference in treatment of VAP-farmers, no VAP-farmers, it was informed that the first one were more often visited.

In one of the areas it was expressed that after the first and second year, the farmers had learned how to grow improved maize. At the same time, however, the staff pointed out the difficulties to embark on extension duties both for Department of Agriculture and VAP. A combined programme for extension was here requested.

Considerable confusion was found concerning seniority within the stations. One District Agricultural Officer considered The Area -Co-ordinator to be in charge of the VAP-Areas while the SAA was in charge of the remaining areas.

A lot of constraints within the extension system have reference to the different partprogrammes. (Area, village, individual). The considerable drop in participation from 1st to 2nd year is in one way explained by the disappearance of females. The question whether the performance of the extension service might have any impact on this still remains to be given better attention.

When provided for, undoubtedly with exception, everybody are trying to do their best. Taking into consideration the areas to be covered, it is hardly possible for all staff to give all the services needed to all subsistence farmers.

1.3

Discuss the use of different agricultural inputs in VAP and their relative importance.

1 Seeds/Fertilizers

The attitude among farmers towards the use of these basic inputs is encouraging. They recognise the need for use of fertilizers as being synonymous to a good crop yield.

The type of fertilizers available in VAP-areas is mainly x-compound and Ammonium Nitrate. Although A/N has less nitrogen percentage compared to Urea, it never the less makes available nutrients to the crop much faster than the latter. It also does not early acidify the soil as compared to Urea.

One important observation concerns the availability of these inputs in VAP-areas.

These inputs should be available in good time for planting. The danger here is that farmers would resort to old methods of planting if inputs are not made available at local depots on time. This would result in farmers getting poor yields as before. The policy of VAP is to increase productivity per unit by eliminating constrains.

Fertilizer depots/sheds have been or are being constructed in all VAP-villages. Roads are being constructed and so on.

However, the tendency among 2nd or 3rd year VAP-villages is that after the first VAP-year (free inputs) production drops suddenly. It was evident during the survey that this could be attributed among other factors to non- or late availability of fertilizers and seeds.

VAP has taken measures in conjunction with NCU and it is promising to note that for the first time in 1982, fertilizers were distributed by the end of October in all VAP-areas.

However, more efforts should be made by NCU to pay farmers early for their produce so that they can buy these inputs. By the end of Oct. 1982, only

Senga Hill farmers were paid.

One important issue can not be overlooked in this discussion. The VAP encourages 2nd and 3rd year VAP-farmers to get seed/fertilizers through agricultural loans or buying using money received from sales of the produce obtained after the first VAP-year.

Villagers in Chainunda Village of Kayambi area (VAP 81-82) will for certain not be able to utilize seeds/fertilizers on the anticipated scale because of the problems they encountered in applying for AFC loans. None of them will get an AFC loan this year.

It is recommended that VAP works out a VAP-farmers loans scheme to avoid such disturbing situations in VAP-areas. One way could be by channelling funds through AFC or local Multipurpose Co-operative Societies for disbursements. It should be remembered that VAP-policy places emphasis on assisting women farmers and this recommendation should be implemented soon.

3) Chemicals

During the evaluation survey in all VAP-villages the evaluation team tried to establish incidences of pests and diseases in crop fields. It is interesting to note that no effort has been made previously by the local extension staff to draw the attention of relevant authorities to this problem. In Lubala Ward Mulenga Musebo Village, Chainunda Village and Makasa Village there were reports of Stalkborer infestation. This same pest was reported in Kapoli Village, Senga Hill. Rodents were a serious pest in Mandona Lunshi of Lubushi Ward. (Mpalapata).

It is recommended that the VAP-provincial staff in conjunction with local extension staff should carry out detailed surveys of incidences of these pests during the rainy season and make necessary recommendations to NCU to make available in these areas certain chemicals that can be used to control them.

Assessment of Economic Performance of VAP-farmers.

This assessment is based on the limited survey of some VAP-farmers in some VAP-areas and the Baseline report.

VAP-personnel have grouped VAP-farmers into 4 categories.

Group A: Averages 26 - 40 bags/Ha.

Resources

1 span oxen

1 scotch-cart

1 ox-plough

1 Ridger

Fertilizers/seed for 1 Ha.

Labour: 40 man/days

<u>Inputs/Ha.</u>	<u>Cost/Ha.</u>
Seeds: 25 kg SR 52	kw 26 - 00
Fertilizers: 4x50 kg bags x/compound "	59 - 80
4x50 kg bags A/N	" 56 - 32
Depreciation and maintenance	" 13 - 90
Vet. and Supplements	" 12 - 00
Total	<u>kw 168 - 02</u>

Revenue

26 bags DK 18 -30 = kw 475 - 80

Gross margins " 307 - 78

Profit 180%

Break-even yield 9 bags

Group B: Above 15 bags/Ha.

<u>Inputs/Ha.</u>	<u>Cost/Ha.</u>
Seeds: 25 kg SR 52	kw 26 - 00
Fertilizers: 4x50 kg bags x-compound "	59 - 80
4x50 kg bags A/N	" 56 - 32
Total	<u>kw 142 - 12</u>

Family labour used.

Revenue

15 x 90 bags á K 18.30 = kw 274 - 50

Gross margins " 132 - 38

Profit 93%

Break-even yield 7,7 bags/Ha.

Group C: 7,5 - 15 bags/Ha.

Inputs/Ha.

Cost/Ha.

Seeds: 25 kg SR 52 kw 26 - 00

Fertilizers: 4x50 kg bags x-compound " 59 - 80

4x50 kg bags A/S " 56 - 32

Total kw 142 - 12

The farmer makes a profit only if he produces above 7,7 bags/Ha.

Group D: Less than 7,7 bags/Ha.

The farmer produces at a loss.

Labour resource as a Constraint in VAP-villages.

During the evaluation tour of VAP-villages it was evident that labour is a constraint in all the villages the team visited. There is such a critical shortage of labour that each farm family should depend only on the members of the family for labour supply. It follows that each household only cultivates the size of the plot it can manage efficiently.

Ambitious households who plant bigger hectarages find it extremely difficult to finish weeding. This trend is observed not only in VAP-villages but in all Northern Province Villages.

The attitude of some VAP-farmers towards expanding their VAP-fields is highly encouraging. After VAP-introduction the farmers have sampled the benefits of improved farming. Farmers have also difficulties in hiring labour since most of the youngsters available in rural areas have their own fields.

It is recommended that VAP works to enable VAP-farmers to fight this constraint. This is the most opportune time for VAP to introduce work-oxen.

Apart from sale of oxen on the individual programme, other strategies to introduce oxen in the VAP areas should be exploited. Possible strategies could be:

- 1) Oxen hire scheme.
- 2) Oxen available to Village producer co-operative societies.

1.4.c

Capacity to follow up the project in second and third year VAP villages.

The non-agricultural aspects of this are discussed under 1.4 b and 1.4 d, the agricultural aspects are elaborated under 3.1.

1.4

Collaboration and distribution of tasks between Project-Co-ordinator, expatriate volunteers and Zambian staff members.

The staff working under the VAP can be divided broadly into 2 groups i.e.

(I) The headquarters staff

(II) The VAP Area staff

The head/quarter staff:

This is located in Kasama and this is where the programme co-ordinator is stationed. The following is his job description:

1. Administrative head of V.A.P.

- Responsible for the daily running of the head office.
- all correspondence/communication from the Dept. of agriculture, Permanent secretary, VAP Committee and Ministry, NORAD, external institutions and camps/areas.
- Expenditures
- Internal filing system

2. Survey and planning

- survey and feasibility studies of all proposed projects on area and village level
- work out detailed plans and programmes for projects.

Implementation/execution on the basis of decisions made in the V.A.P. Committee, the VAP team and from the Evaluation Course (workshop) for field staff and party officials on the Local level

- Budgetting
- Short and long-term programme planning in Co-operation with the VAP team for presentation to appropriate authorities.

3. Overall Co-ordination of the programme

- Arrange and Co-ordinate special extension approach
- Arrange extension and evaluation courses for the field staff and others involved
- Overall Co-ordination of work programmes/project implementation
- Co-ordinate purchasing and delivery of inputs to camp and area levels, as well as the overall transport in general
- Secretary of the VAP Committee
- Arrange and chair monthly VAP team meetings
- Chairman/Vice Chairman for the Misamfu workshop committee, responsible for workshops activities.

4. Control, monitoring and reporting

- Inspection of all ongoing project and the extension work (follow up and supervise when necessary)
- Co-ordinate reports from camps and areas for administrative use and for further forwarding
- up-to-date information and reporting back to the area level
- Schedule reporting to superior authorities
- Keep up to date progress charts
- To help the Co-ordinator carry out his duties properly, there are the following staff at the Head office:

- (I) Water Engineer - from Dept. of Agriculture
- (II) Accounts clerk - " -
- (III) Typist - " -
- (IV) 2 Drivers employed by VAP
- (V) Office orderly - " -
- (VI) Sociologist - coming soon - NORAD

Still then, at the moment the VAP-Co-ordinator is rather overworked with peety administrative tasks and this has tended to leave him with little time to do more important functions of planning and monitoring of the Programme. The team therefore recommends strongly that VAP should employ an Administrave/Logistics Officer to take care of the general Office Administration and purchases so that the Co-ordinator can concentrate more on planning and technical matters.

2 The VAP Areas

At the moment VAP operates in three areas in the Northern Province. There is supposed to be an Area Co-ordinator who should be the resident representative in the VAP Areas.

The job description of the Area Co-ordinator is as follows:

- Administrative and reporting link between village, camp and area and the Head office.
- Keep an up to date Area office.
- Co-ordinate the Area programme and supervise Area projects.
- Co-ordinate transport.
- Member of the VAP team to represent the Area.
- Arrange monthly VAP meetings at the Area level with all the personnel involved.
- Co-ordinate and forward requests for material/inputs.
- Pay frequent visits to old and new VAP villages to discuss the programme approach and to monitor the attitude.
- Pay special attention to credit or Multipurpose societies and generally boost and support feasible village activities.
- Whenever possible attend meetings in the villages.
- Assist extension workers in their work when necessary.

- Follow up individual programmes by giving advice and co-ordinate transport when needed. (oxen/training, small animals, courses etc)
- As far as possible limit the activities to advising, supervision and Co-ordination and leave the direct executive responsibilities to the Camp personnel and/or the local people.

In the VAP Areas, VAP uses the services of the Local Government staff that is available. This is very true for the Agricultural staff in particular. (SAA's, AA's and CD's). Other Departments which are represented in these areas are: Health, Community Development and Education. However it was quite evident that it is mostly agricultural staff who is used in implementing most VAP projects. One feature which should be made clear is that the Agricultural staff and staff from other departments which are in existence in the Areas, do not have any specific job descriptions from VAP.

Main observations and recommendations

It was observed during the evaluation that there is at the moment a problem with the Area Co-ordinators. Two out of three VAP Areas in fact do not have Co-ordinators in the real sense, these areas are:

Chitoshi/Mpalapata and Kayambi/Makasa.

The team learnt that the area Co-ordinator for Chitoshi/Mpalapata area left in July at the end of his contract and had not been replaced.

The area Co-ordinator for Kayambi/Makasa had left the area and was instead staying in Kasama about 150 kilometres from the area. The explanation

for this was that the area was infected with malaria and the team understood that NORAD was not going to send any more Norwegians out there.

The job of an area Co-ordinator is a vital one especially for Monitoring and Co-ordination of the programme activities. The current situation therefore, if let to continue, will without doubt have adverse effects on

the programme's intended objectives.

The team strongly feels that NORAD should recruit new Area Co-ordinators well in advance to ensure continuity in Area Co-ordination when the old Co-ordinator's Contract expires. These new Co-ordinators should spend some time with the old ones for smooth handover and orientation.

If NORAD is not going to recruit any new expatriate volunteers as Area Co-ordinator for Kayambi/Makasa, a move towards employment of a Zambian Area Co-ordinator for that area should be made. There are some very experienced Zambian personnel who could do the job and a possibility could be the Senior Agricultural Assistants in these Areas. This is exactly what I.R.D.P. has done. This Area Co-ordinator should of course undergo a short course to get well acquainted with his duties.

It was the general feeling of the team that most of the members of staff from other departments were not really sure about what participation they were expected to take in VAP areas. It is therefore recommended that VAP should mount a kind of information system to make these people aware of the services which could be rendered to them and thereby making them more involved.

Almost all of the Agricultural staff in the VAP Areas agree that their load of work has increased thus making it doubtful if they can still adequately give their services evenly also to the non-selected villages. Steps towards helping out on this problem is to try to promote the Extension approach called the Training and visit system. That is to train some farmers to get involved in supplementing field work of the agricultural staff.

Finally it was felt that VAP should involve more of the district councils in planning and implementation of its activities. The use of staff like well foremen in the wells projects is a case in point.

1.4. b

- extension staff's collaboration with village authorities and extension staff from other sectorial departments.

A. Collaboration with local village authorities.

Efficient extension of VAP envisages the involvement of local leadership at all stages of programme planning and implementation

Ideal structure of local Political Authority:

Ward Committee (Ward Chairman/secretary)

↑
Branch Committee (Branch Chairman/secretary)

↑
Section Committee (Section Chairman/secretary)

Observations/Recomendations.

There was effective co-ordination between local authorities and VAP-staff in Kayambi/Makasa, Chitoshi/Mpalapata/Muyembe and Senga Hill.

The Ward Committees here were involved in and took an active part in selection of new villages and suggestions for priorities in the yearly work programme. The Ward Chairmen were furthermore often engaged in mobilizing people for self-help projects, particularly in Chitoshi/Mpalapata/Muyembe camp areas.

- However, some examples of poor relations between VAP/Department of agriculture and the local authorities were given.

- In Kayambi, following VAP policies Kayambi Primary School was given free inputs for the School Production Unit in 1981. The Ward Chairman incited the Parents Teachers Association (PTA) to rise against the school administration and demanded that pupils should not work at the production unit. Teachers went on strike because they believed they were implementing the Presidential directive of higher agricultural production. However, the problem was solved in favour of the teachers and the production unit has

this year produced over 200 bags of maize. The background for the conflict is not known.

- In Muyembe, the Ward Chairman did not want "Watch Tower" (Jehovas Witnesses) members (3) to benefit from VAP-subsidies. This led to difficulties for the AA there, but the problem was during the Team's visit at Muyembe solved.
- In Makasa there was a row between the former extension staff and the Ward Chairman about who should be employed to construct a road paid by VAP. The Chairman had wanted only UNIP members while the AA wanted anybody willing to do the job.
- Villagers interviewed in Nondo area showed that the Ward Chairman was not so active there.

To avoid such incidents VAP staff should find ways of improving working relations between extension staff and local leaders. The Evaluation Team recommends that the extension staff should adhere to the established communication channels in carrying out their duties. The importance of Section, Branch and Ward Chairmen in the official communication model should be fully appreciated. This is to ensure that there is less friction between the extension staff and local leaders.

During our survey, extension staff never talked about the Branch Chairman. It seems they only deal with Section and Ward officials. The extension staff should utilize the services and leadership of Branch Officials. It was only in Lubala Ward (Kayambi) at Mulenga Musebo village that the Branch link was utilized.

Extension staff should also work in close cooperation with Ward Chairmen and Community Development Assistants in identifying local leaders up to the Section level. This is to ensure that only leaders accepted by the local people are used.

It is also recommended that a Provincial Political Official be invited to

the Evaluation Course to give a lecture on the importance of local leaders' involvement in VAP, specifying the roles expected of them.

8. Collaboration with extension staff from other sectorial departments.

Staff at Agricultural stations/camps in VAP areas.

Agricultural Station/Camp	Nondo	Kayambi	Makasa	Mpalapata	Chitoshi	Senga Hill
AC	-	-	-	-	-	1
SAA	-	-	1	-	1	1
AA	1	1	1	1	1	2
CD	1	1	-	-	1	-
CDA	1	-	-	-	1	1
HA	1	Hospital	1	-	1	1
VA	1	-	1	-	-	-
SH	1	1	1	-	1	1
OT	-	1	-	-	1	1
TD	-	1	-	-	1	1
WAC	-	1	-	-	-	-

Abbreviations:

- AC - Area Coordinator
- SAA - Senior Agricultural Assistant
- AA - Agricultural Assistant
- CD - Commodity Demonstrator
- CDA - Community Development Assistant
- HA - Health Assistant
- VA - Veterinary Assistant
- SH - Station Handyman
- OT - Ox Trainer
- TD - Tractor Driver
- WAC - Water Affairs Capitao

Observations and Recommendations.

Community Development.

There are no community development services in Kayambi, Makasa and Mpalapata camp areas.

In order to have an efficient implementation of VAP these services in form of initiating self-help projects, functional literacy classes and women's clubs, are needed. VAP administration should request the Community Development Department to deploy CDA's to the areas in question. The Department, normally being in a poor financial situation, could be assisted by VAP in paying housing allowances for the new staff. The places, particularly Kayambi and Makasa, have been neglected for too long by the Department of Community Development. It is really a drawback to an integrated rural development approach not to have these services to offer.

In the Nondo area there is one CDA and one Women's Organizer. They are supposed to form and run functional literacy classes and Women's clubs in the camp area, which also include 5 VAP villages. However, the relations between agricultural extension staff and community development personell are not so good and need to be improved.

Both parties should put efforts into rectifying these misunderstandings f.ex. through information from time to time about plans and activities in the VAP areas.

In Chitoshi there is one CDA who is supposed to cover an enormous area of 4 Wards (Lubushi, Mulenga Mapesa, Masonde and Lunte). He has worked in close cooperation with VAP since the establishment there in 1980. Although the Honda given to him by VAP is presently out of order, he manages to ~~carry~~ carry out his duties using a bicycle.

At Senga Hill the CDA has been given the task to revamp[?] a VAP village which performed very badly since the selection in 1976 (Kalukanya). He has managed to arrange a functional literacy class there with 25 students. They are now cultivating 0,25 Ha each, and VAP is paying the fertilizer.

Veterinary Services.

There are two Veterinary Assistents in VAP areas - Nondo and Makasa.

It is not very clear what their duties are except carry out routine disease control measures and castrate young bulls.

VAP has assisted the VA in Makasa with a Honda. The return value of this is rather doubtful, however. Following the creation of the outtraining centers in the VAP areas the role of the VA is likely to become more important.

Health Services.

In the past VAP has assisted in transportation of drugs and equipment out to the Rural Health Centers. In one case VAP has been approached to help in the construction of a Rural Health Center on a self help basis. These are activities which should continue.

The near cooperation with health personell aiming to cover the villages is, however, to a large extent lacking in most areas. Only in Nondo and Chitoshi there seems to be efforts made in this direction. The HA at Nondo has gone with the AA on the Honda to VAP villages to inspect latrines, water sources and houses.

Personell at the remaining Rural Health Centers should be urged to make plans for their visits to the villages and approach VAP for transport and other assistance.

Water affairs.

The Water Affairs Department has seconded to VAP a Water Capitao who is stationed at Kayambi. He could be of valuable help to the Programme in siting of Wells and supervision of the construction. Having no bicycle, however, he has so far been of limited importance for the water development in the area. His transport problem could be solved easily by VAP.

The pegging of waterfurrows is done by a team from the Provincial Planning Section, and VAP pays the expenses (petrol/allowances). Quite a number of

waterfurrows have been constructed in VAP areas, particularly in Nondo, Senga Hill and Chitoshi areas. Pegging of fishponds is done by local extension staff or the farmers themselves.

Cooperatives.

There is a need for the Department of Marketing and Cooperatives to increase its activities in VAP areas, and more Multipurpose societies should be formed. Viable cooperative societies which can operate independently will be important in the future when VAP pulls out from an area. There is only one operating Primary Society at present - Chisanya Multipurpose Society in Nondo/Senga Hill areas. In Kayambi, Makasa, Chitoshi and Muyembe areas multipurpose societies are in the process of being formed, but are not yet operational.

Certain villages, Mulenga Musebo in Lubala Ward (Kayambi), John Chingalawa in Nondo, have taken further steps and formed Village Producer's Cooperatives by working on communal fields. The impact of these efforts are still not known, however.

The team recommends a collaboration between staff from Department of Marketing and Cooperatives and VAP extension personell in order to form and strenghten Primary societies in the VAP areas. Near cooperation with the WCU/SIDA based "Team for Promotion of Primary Societies" can lead in the same direction.

1.4 d

"Assess the performance of the extension service provided..

.. ability to treat subjects other than purely agricultural ones.."

VAP water development

The annual work programme has acted as job description for the A/C. The A/C has arranged technical assistance for demarcation and pegging of wells/furrows, as well as arranged transport of equipment and tools to the villages. The CDA at Senga and Chitoshi has organized selfhelp groups. Supervision of workprogress has been followed up by either the A/C or agricultural staff.

Work performance Kayambi/Makasa

<u>Year</u>	<u>New wells</u>	<u>Improved/equipped wells</u>
1977-81	6	3 completed
1982	11	7 work in progress

source VAP co-ordinator no records 1978

From the table it can be derived that VAP has speeded up the water supply village programme, probably due to that A/Cs have been established in the areas.

However, 5 of the 11 wells for 1982, are carried over from 1981 or earlier. It is doubtful whether these wells will be completed this year, in the absence of an A/C and new agricultural staff. According to the VAP policy, equipment has been brought out by the former A/C prior to digging. The demand for new wells in this area is high, 15 new wells were requested for 1982. But the responsibility on behalf of the village seems to be illdefined both to complete the work, and regarding provision of tools which were provided, but had disappeared. A hypothesis is that ample provision of equipment will lead to increased expectations and increased demands for wells. In one case a village had a request for 3 new wells

and ~~was~~ waiting for materials to be provided. For other VAP areas (Senga Hill/Nondo) the demand for technical assistance to peg waterfurrows exceeds the interest in wells. Wells are here individually owned and are dug by selfpaid labour. In a 82/83 selected village there are already 11 wells.

Work performance Senga Hill/Nondo

<u>Year</u>	<u>New village furrows</u>	<u>New furrows individually owned</u>
1977-81	8	9
1982	3	10

source VAP-coordinator

Waterfurrows imply a greater labour-input than wells, and it is interesting to note that individually owned furrows are increasingly popular. It is difficult to organize self-help groups in order to complete the work. However one area has been very successful, and have 9 functioning waterfurrows, 1 nonfunctioning and 2 under pegging. (S/A). The other agricultural staff was not informed about the actual conditions of the furrows. It is advisable that the S/A and the A/C delegate part of the waterwork follow-up to the other staff.

The assistance to individually owned furrows should be kept in mind when assistance to individual wells are discussed. A suggestion is that they should have technical assistance as well, but should pay for equipment from VAP, who also transport the material to the village. Communal wells has to be defined as to the minimum number of families, that can recieve free material and tools.

Guidelines are needed on kind of material to be provided prior to digging, and the responsibility of the village to complete the work when assistance had been provided should be agreed upon.

Conclusion on VAP waterdevelopment

VAP have still problems to fulfill their target of wells and furrows to all villages which ask for help. The policy to dig new wells in only already selected villages, produces a time lag, when some villages can't complete the work in the expected time. The A/C and agricultural staff are already too involved in transport of materials, and in order to efficiently use the resources of time and transport, more villages could be involved. More technical assistance and supervision is needed, that can't be provided by extension staff.

It is therefore recommended that VAP create an independent water programme as an area programme, where a watersurvey of the whole area could be done in the planning phase of the expansion to new areas, and where all villages can be assisted regardless if they are selected or not.

Additional suggestions are:

- Agreement with Dep. of Water Affairs on how many wells they are prepared to take over in each area, and what standard of wells that are acceptable.
- The Water programme could arrange short mobile training courses for the wards in maintenance and cleaning of wells.
- Simple windlasses of wood could be developed at Misamfu workshop for intermediate technology.
- Since it is the women who collect water, their representatives should be listened to when planning of new wells takes place in the village, to secure that the need of wells is fully appreciated and understood.

Fishponds

Fishponds aim at "supporting individuals to develop suitable enterprises for themselves."

VAP gives advice on digging and maintenance of ponds, free fish for all

ponds and transport from the fishbreeding station under Dep. of Fisheries to the pond. Fishponds is a low cost project, below 1% of the Individual Programme.

Stocking of fishponds is dependant on

- 1) available stock of fish
- 2) wether the fish survive the transport to distant villages.

The programme has been very successful, but the supply of fish has been the limiting factor, not the performance of staff.

<u>Areas</u>	<u>Ponds stocked by VAP</u>	<u>Ponds dug, but not yet stocked</u>
Senga Hill	44	15
Nondo	13	3
Kayambi/Makasa	1	-
Chit/Mpal/Muy	1	2

There are several old fishponds in the VAP areas, owned by "progressive" farmers. One farmer can have 2-4 ponds, depending on suitable land, and where there are many water-furrows. In drier areas there are some problems with dry ponds (Kayambi) or delayed work (Chitoshi).

The interest from the farmers also show that fishponds are seen as a profitable enterprise for the individual.

Two other factors pertaining to fishponds are interesting. Digging and maintenance of the ponds are wholly men's work, the often underused labour of men can be channelized into such activities. Consumption of the fish is done locally, either within the household or sold/exchanged within the local community.

Forestry and soilconservation.

This activity is only at the planning stage. Apart from reforestation and making of contour ridges on slooping fields, great care has to be

taken to conserve and improve the texture and nutrient composition of the thin layer of topsoil, when other methods of intensive farming as f.ex. introduction of oxen, are introduced.

Suitable oxen implements have to be developed where experience and knowledge could be drawn from SPRP and ARPT.

Artisanal activities

The joint IRDP/VAP workshop at Misamfu, has set up a carpentry and blacksmith section. Training courses for village artisans (3 blacksmiths get training for 3 months) have been delayed, due to shortage of tools and raw material.

One can ask if the basis for intermediate technology aimed to function as village level, should rely on imported raw materials and sophisticated tools as is now the case.

There seems to be need of further practical training for the blacksmith instructor. He had only one month training practise himself.

Very little cooperation so far have been established between VAP and the intermediate technology section of the workshop. According to VAP they have asked for development of certain simple tools, but have got no feed-back. Management is now changing at this section.

Small stock

Target for 1982, exchange of 400 cockerels. In general there is a heavy demand from the villages. Sheep have to be "imported" from other provinces. Feeding of cockerels for exchange, have been taken over by IRDP/VAP due to shortage of stock feed.

Whenever there has been cockerels available the A/C has brought them out to villages. Sometimes the cockerels have finished before all expectant villages were reached (Makasa). The follow up by

extension is not often done. "Some died" is an answer that indicates a problem, of for example proper feeding.

All in all since early 1980 about 1500 cockerels have been brought out to the VAP areas.

Distribution of fruit and coffeetreeseedlings

These are crops that need specialist advice, and the extension so far are not able to cope with problems of disease of orangetrees or coffeeseedlings.

Senga Hill/Nondo

1979 - 1st quarter 82:

coffeeseedlings (5 ngwee each)	3.815	63 farmer
orange seedlings	400	38 farmer
guava seedlings	40	-

From 10 to maximum 100 seedlings have been distributed to each farmer.

A rough estimate gave at hand that about 50% of the seedlings have died. One reason given was shortage of water during dry season.

Women's Clubs

The policy of VAP is to support Women's Clubs. This was done in Chitoshi where VAP sponsored cooking utensils for use in Women's Clubs. Women's Clubs are supposed to raise money by means of cultivating a production unit, and use the money on a common goal, most often materials for sewing and knitting.

Maximum no. of W/C in VAP areas

	active	not active	organized by	year
Nondo	5	2	comm.organizer	about 1980
Senga	3	-	C.D-A.	1982
Kayambi	-	1	A/C	1982
Makasa	3 and 2	1	Home ec. and A/C section	late 1982 early 1982
Chitoshi	4	-	C.D.A.	unknown
total	17	4		

The number of members are usually 10-25.

All W/C are very dependant on active members, and a strong weekly support from outside by extension staff. Experience has shown that clubs tend to collapse. The approach so far has not succeeded to make clubs as an important key to female participation in rural development.

Explanations by W/C organizers.

- women reluctant to pay memberfee k1-2, and contribute monthly.
- women are forced to participate by their husbands, who want their wives to improve their domestic capacity.
- women have difficulties to allocate time 1-2/week, for meetings and work on the production unit., either because they are busy raising income as saleswomen, or busy om their fields.
- women have no confidence, and don't believe they will succeed.
- some club activities are boycotted by their husbands, who do not want their wives to participate.

Village nutrition classes.

These have not been conducted so far. A couple of times the health staff has been invited to group classes in agriculture. W/C and literacy classes have nutrition as a small part of their activities, but are only for members.

Health.

Each VAP area or camp has a health center, except Kayambi where there is a mission hospital, in the vicinity. The healthcenters are supposed to carry out both curative medecine at the center and preventive care for a large catchment area. Primary health care is dependant on availability of transport, and contact with existant Community Health Workers in the field. VAP or extension staff have had limited contact so far with the local health authorities. Transport has been provided on personal initiative in some areas, when agriculture and health have had the same directions.

Recommendations:

To approach Community Development for one female community organizer to Senga, one C.D.A to Kayambi and one female community organizer to Makasa.

Guidelines from VAP how they can support W/C and on what conditions.
Contact with Dep. of Agriculture home economic section, and Village
Industry Services (as examples) in order to diversify their support to
women.

Establish village nutrition classes according to the Agreement.

Integrate Ministry of Health in the VAP Committee.

1.5

Assess the relevance of the monitoring and evaluation system applied in VAP and particularly of participatory, evaluation through the use of seminars.

Guiding definitions monitoring

This is simply a continuous Periodic Surveillance of the physical implementation process to ensure that input deliveries, work schedules, work outputs and other required actions are proceeding according to the plans.

Evaluation

To assess the extent to which the objectives of a project or programme have been or are being achieved and to analyse the reasons for discrepancy.

It was the general feeling of the team that VAP has a sound inbuilt monitoring and evaluation of the programme activities. It was observed that regular meetings for VAP were organised starting from the camps to the provincial level to check the progress on programme activities. These meetings and discussions can be listed as follows:

- (I) Weekly area meetings organized by the Area Co-ordinator and attended by the Agricultural staff and staff from other departments.
- (II) The Co-ordinator makes a monthly report to the VAP Co-ordinator while the Senior Agricultural Assistant makes his monthly report to the DAO.
- (III) Annual VAP committee meeting which is chaired by the Provincial Permanent Secretary.
- (VI) The annual VAP Evaluation Course acts as a grass root level forum for pin pointing problems and bring possible solutions to VAP performances and trends which are undesirable. It also gives the VAP Administration a chance to adjust its strategies.

Through these regular meetings therefore, people who are involved in some way or another with the programme are able to keep a good track of the

programme activities and problems arising are quickly pointed out and corrected in time.

Observations and recommendations about the monitoring and evaluation system:

It was found out that the system being as good as it is has certain faults in it which makes it fall to "tick".

These were as follows:

- (I) From discussions with the Ward Chairmen and the villagers it was learnt that the villagers who are supposed to be beneficiaries of the participation in these VAP meetings do not always manage to have their needs expressed properly.
This could partly be attributed to the fact that there seems to be confusion about the Village Productivity Committee concept since decentralisation came into effect. VAP should therefore in conjunction with the Ward Chairmen work towards strengthening village participation by educating the villagers on issues, concerning their fundamental rights and procedures to follow when they have general problems to put forward.
- (II) The evaluation courses organised by VAP should by all means include villagers and if possible evaluation courses should be organised at camp levels so that more villagers can attend. These evaluation courses should like now include members of staff from other departments i.e. Health, Community Development, Education etc. It will certainly be ideal to use local languages so that the villagers can openly express their opinions.
- (III) There still seems to be little or no participation by women in these VAP meetings and thus women affairs are not fully catered for.
(Monitoring of nutritional status in the villages is still lacking).

The team therefore recommends highly that VAP should consider engaging a female nutritionist who could help out on this problem.

- (IV) There is one area in which VAP seems not to be well organized i.e. the system of following up old villagers. There should be continuous collection of data over years even after VAP has withdrawn to find out if there is any sustained development. A reporting system has been worked out, but it is still too early to say to which extent it functions.

Without intensive instructions, the engaged Area-Co-ordinators have limited qualifications to follow up the Job-description concerning control, monitoring and reporting, hardly no time either without priorities set by the management. Overloaded with odd jobs, the VAP-Co-ordinator can not be expected to give sufficient attention to this subject.

VAP AND THE ZAMBIAN AGRICULTURAL ADMINISTRATION

2.1

Assess the positive and negative consequences of VAP's increasing administrative and financial independence of the Zambian governmental and parastatal system.

As stated in the Baseline report and other parts of this paper, the original idea was that VAP should be integrated into the GRZ structures. However, the Team found that the Programme operates more and more independently of the Government system. For some time now this has been a point of discussion. In fact, for VAP as for many other foreign assisted projects in Zambia there are genuine reasons put forward for administering a programme independently. The main reasons stated are as follows:

- I Avoid funds being used for wrong purposes. I.e. funds originally intended for VAP were in many cases used for other activities and hence the programme could not accomplish some of its objectives.
- II Avoid unnecessary delays in having funds released. The Government system of releasing funds has always been known to be rather slow due to the channels one has to go through. This results in funds being released late and sporadically, making it difficult to carry out a work plan.
- III Avoid misuse of vehicles and fuel by provincial staff.

To sum up the main reason for working independently is:

To avoid administrative bottlenecks that are presently being experienced in the Government system, so that the Programme objectives could be achieved within the time set.

Usually there is also pressure from the donor country to have quick results and have funds spent within a given calendar year. This has also played a part in forcing the Programme to implement more on its own.

Recommendations

It is the opinion of the Team that while the reasons for VAP

working independently are genuine, there should nevertheless be a plan for bringing the Programme back, partly or wholly; to the Government system. While the Programme might in the short run enjoy the effectiveness of the independence it has now, it will still in the future when the period of phasing out comes, risk that the activities come to a standstill. This is because little or no knowledge and expertise about the Programme has been generated within the Government structures, at least above camp level.

It is, however, recommended that the present system of release of funds should continue and that a planned reintegration should not start at Provincial level, but rather at District and Area level.

In order to do this the possible advantages of the new decentralization system in Zambia should be utilized.

Integration might be defined and achieved in other ways than inclusion of the Programme administratively. With the final phasing out of VAP in Northern Province it is conceivable that few capital projects are to be handed over to Department of Agriculture. The exception is offices and staff-houses which there easily might be found arrangements for. Vehicles and other equipment might at that stage have been partly depreciated. With proper administration and formal written agreements before any implementation takes place, marketing sheds and depots should be taken over by Primary Societies/NCU.

The main investment which VAP hopefully is leaving behind is the encouragement and education given to the rural population by "first aid" donations given to self-help projects, being within the Individual, Village or Area Programme.

The desirable integration should take place at Area level, i.e. defined by the Agricultural Extension Block now under formation. Integration organized at that level will have the advantage that the target group, the

rural population, can readily decide upon and implement projects, after VAP has made funds available. The forum for decisions and responsibilities will be Party Sections/Branches and the Ward Development Committees. In other words, VAP will strengthen the self help activities already well established by assisting only financially, but leave planning and implementation to the local people. It is expected that responsibilities for maintenance will be higher under such a system. Within this system there should also be a place for the traditional rulers, whose authority should not be underestimated.

As pointed out, VAP might in some years' time being 5 to 10 or even 20, have to phase out from the present areas and finally from Northern Province. Co-operation with all District authorities is therefore desirable to meet the future handing over.

Proper maintenance of capital projects is depending upon the Districts' recognition of their responsibilities. Such responsibility is not likely to exist without the involvement of the District councils from the very beginning.

VAP should follow the strategy now used by IRDP Mpika. Here the District Development Committee through the different Secretaries is approached and asked to make requests for capital projects in the rural areas. These requests should include plans for the technical implementation, costs and a time schedule for the project. Funds are made available by IRDP at the completion of the project. Thus the agency is not involved in either planning, implementation or maintenance of the projects. The success of this strategy is, however, dependent of cooperative District Development Committees.

2.2

Discuss the present and future role of the expatriate and Zambian personnel at all levels of the VAP administration.

Present role of expatriate and Zambian personnel in VAP-administration.

The present organization of VAP. (simplified)

VAP-Committee Dept. of Agriculture, Kasaka

VAP Team VAP Head office

Co-ordinator

Supervisor

Accountant/Office staff

Drivers

VAP areas

Agricultural staff Area Co-ordinator Camp staff

The job descriptions of the Co-ordinator and Area Co-ordinator are presented under point 1.4. The job description of the supervisor:

- Assist the VAP Co-ordinator in the overall coordination of the Programme.
- Overall supervision of the extension work.
- Have direct extension work on specialized production/activities.
- Frequent touring of the areas according to schedule to monitor progress, take up orders on and distribute materials. In general create a continuous link.
- Submit weekly tour/progress reports to the co-ordinator.
- Secretary for the VAP-team.

Observations

It was apparent during our 3 weeks' survey of VAP that the Co-ordinator is just too busy implementing his tasks at the provincial office that he really has very little time to devote to touring areas now served by VAP.

Although the post of VAP supervisor appears on paper, in fact the post is now vacant.

At the time of writing there is only one Area Co-ordinator at Senga Hill who is also responsible for Chitoshi/Mpalapata. Ideally there are supposed 3 Area Co-ordinators in VAP areas.

Specialist Officers from P.A.O.'s office were little engaged in VAP extension work.

Recommendations

To ease the pressure of increasing work load of the Co-ordinator the Team strongly recommends the engagement of a NORAD Administrative/Purchasing Officer. The Co-ordinator is too much engaged in day to day administrative work and purchasing, giving him little time for planning and monitoring the Programme's developments.

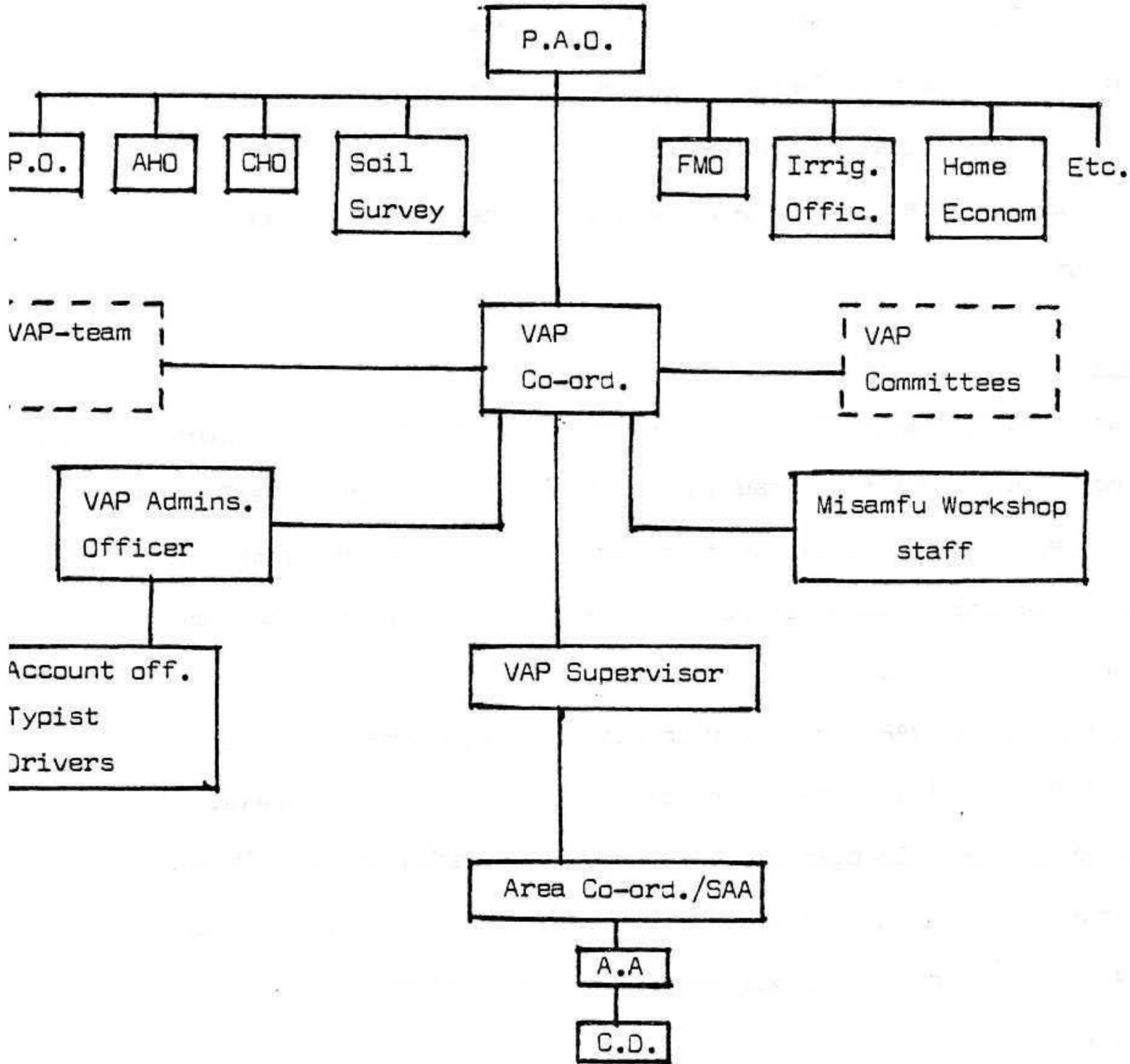
To employ a new VAP Supervisor to act as a counterpart to the Co-ordinator and be directly responsible for extension in the VAP areas. The Supervisor should be a Zambian and a technical or professional Officer.

To recruit Area Co-ordinators well ahead before the contracts of the old ones expire. 2 more NORAD volunteers as Area Co-ordinators are at present needed.

In order to have a concerted effort by both parties in the future implementation, there is a need to have a clear staffing structure of VAP for all concerned. The roles of staff from both sides should be explicitly explained to avoid any confusion in future. There has never before been an organizational structure of VAP, only bits and pieces of it.

Proper job descriptions for all field staff (SAA/AA) should be made. These should include duties exclusively for VAP and duties for Department of Agriculture in general. The DAO's should be involved in this work.

Recommended staffing structure.



VAP should also utilize more the services from specialist officers at PAO's office. This has been neglected in the past, but by providing transport and sometimes allowances for these officers, their expertise and services are readily available.

2.3

Discuss the participation in decisionmaking at the various level of the programme.

Originally the intention of VAP was that the Programme should be almost completely intergrated within the GRZ administrative structure.

However, even at that stage, as usual in the implementation of projects, there were created some committees outside the gazetted establishment.

The reason for this might have been that there was not a suitable organizational system that could cater for a smooth running of the Project, or there might have been limited knowledge about how to utilize the existing structures.

The present situation, when decisionmaking is concerned, is that internal channels are used from grassrootlevel to final approval.

Zambians are found and even outnumbering expatriates in all committees.

The problem remains, however, in which way these committees and the individuals manage to report back to the established Government structures.

This discussion will focus on such issues. It must be admitted, however, that through reports available and through a lot of interviews it has been possible to establish a relatively clear picture about the structure of the VAP-organization and decisionmaking process within the Programme.

Based on information directly requested from the VAP-Co-ordinator in Chart No. 1, Committee activity description, it has been possible to establish an organogram in Chart No. 2, Project Organization.

To understand the links of the Project to the traditional leaders and the overall political system within the Province, Chart No. 3 has been drawn up.

This intend to illustrate the present possibilities of co-ordination between the VAP management and the political bodies.

CHART NO. I COMMITTEE ACTIVITY DESCRIPTION

MEETING/ COMMITTEES	WHO PARTICIPATE IN THE MEETING	WHAT IS DONE IN THE MEETING	MEETING TAKE PLACE WHERE WHEN	WHY IS THE MEETING HELD	REMARKS
Monday Meeting	Camp staff/ Extension staff Approx. number of participants: 4-10	Discussing last week's performance Distributing tasks for the coming week among the staff	At the camp Monday or Friday	To coordinate work and transport	TOR: No
Area Meeting	Local politicians Extension personnel Incl. Area Coord. Representatives from villages Approx. number of participants: varies	Budget and work programme proposals	By local July arr. and Nov./ Dec.	To give a basis for next years activities according to the wishes/needs of the local people	TOR: No
VAP TEAM/ Problem Meeting	Expatriate staff Approx. number of participants: 5	To discuss progress/ lack of progress and way of operation, and current problems	Kasa- Usu. ma once a month	To find and propose improved work methods/solutions to problems	TOR: No, Informal
VAP Evaluation Course	Local politicians and village representatives. Extension staff. VAP adm. Rural sociologist (leader). Approx. number of participants: 30	Discuss and share experiences from last years activities and performances. Up to now also to finalize work programme and selection of new villages (x)	FTI of FTC March	To evaluate the programme and involved personnel's performance. Up to now also to propose to the VAP Com. new selected villages and Ann. Work Programme. (x)	TOR: Yes, Agreement.
VAP Committee	Permanent Secretary (Chairman). Prov. Heads of Dept.s. DGS and DESS. DMOS. VAP Adm. Rural Sociol. Approx. number of participants: 18-20	Discussing all matters on policy and performance of overall interest to the Programme.	Kasa- ma Mn. twice /year Feb./ Sept.- Nov.	To approve/disapprove proposed activities. To decide matters within the policy framework. to propose evt. change of policy.	TOR: Yes, Agreement
VAP Annual Meeting	VAP Committee. NORAD Village and Area Reprs. Extension staff. VAP Adm. Rural Sociologist. Approx. number of participants: 30-40	Discussing last years performance/activities Emphasls is put on the view from the very local level	Kasa- ma After the agric. season Nov./ Dec.	The Meeting is mainly an evaluation one, and the only one where all levels are coming together to discuss	TOR: Yes, Agreement

(x) The Work Programme and Village Selection part is from 1982 taken out of the Evaluation Course and replaced by a Work Programme Committee with much the same participants, with a meeting to be held in November/December.

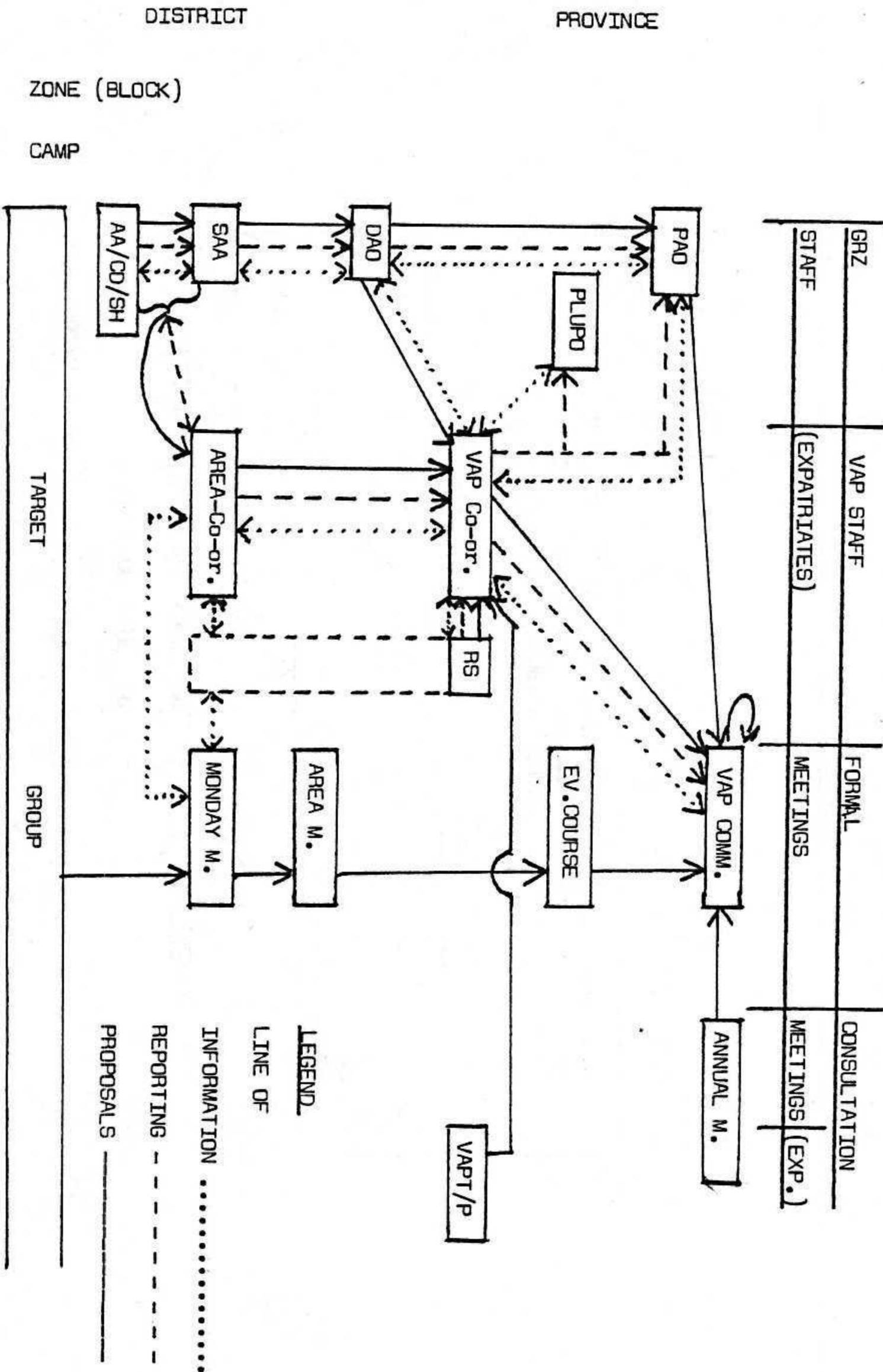
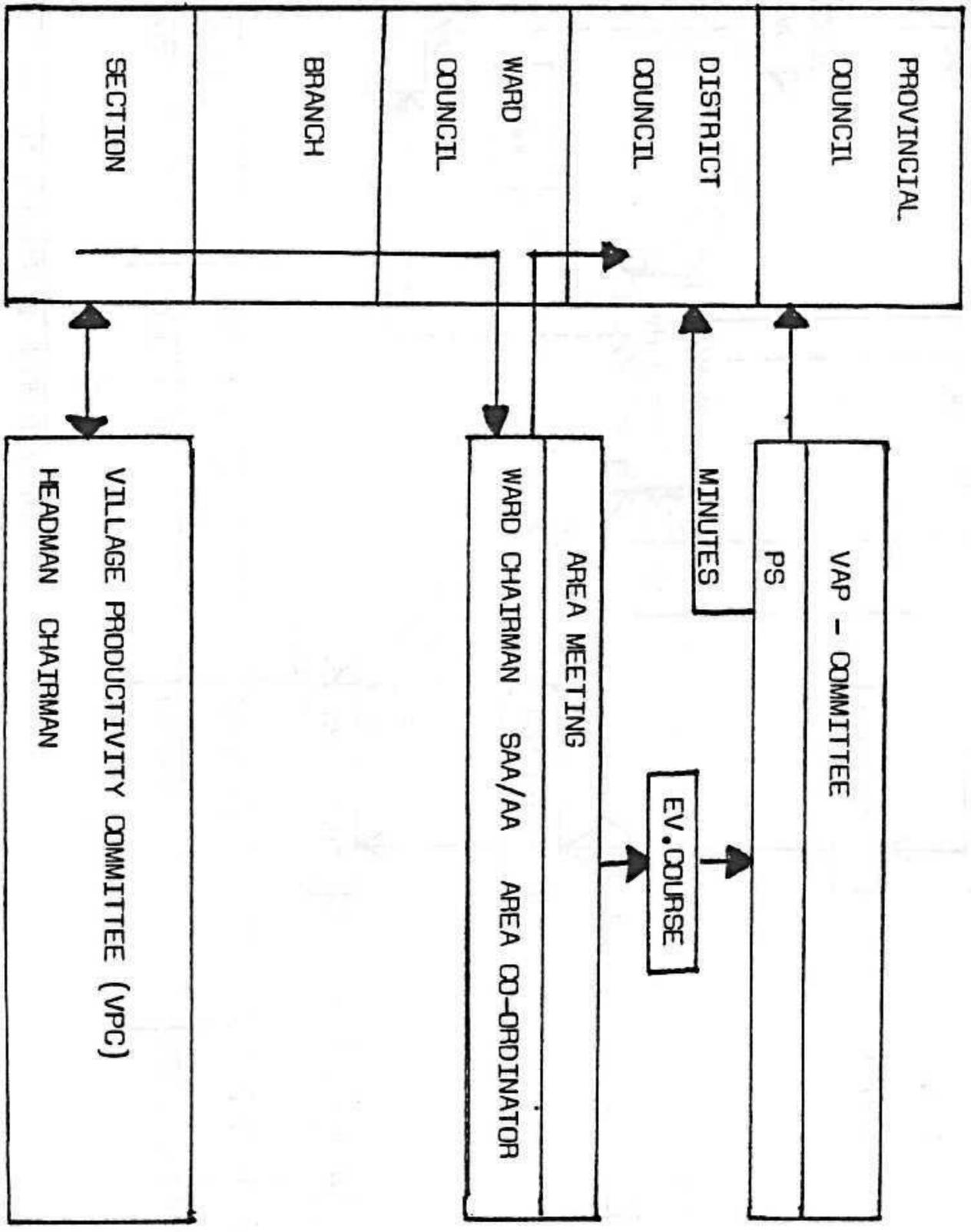


CHART NO. 3

REPORTING OF CAPITAL PROJECTS

LINE OF CO-ORDINATION BETWEEN VAP and PROVINCIAL AUTHORITIES



	WHO					REMARKS
	INITIATE	PROPOSE	ADJUST/APPROVE	DECIDE		
Present VAP Policy/Agreement		VAP.adm. Staff. VAP-Evaluation Course	VAP Committee	VAP-Committee ¹⁾ Land consultations Z/N 2)	1) Minor changes 2) Basic decisions ons/changes	
Area Programme	Local people WC/Area Co.	Ward Council Monday Meeting	Evaluation Course	VAP-Committee VAP-adm/KASAMA		
Village Programme	Local people Ext. Staff	Area Coord. Ward chairman	Evaluation Course	"		
Individual Programme	Local people 1)	Extension Staff	Area Coord.	VAP adm/KASAMA		

According to the present set-up, VAP is operating at three different levels:

- 1) The Area Programme
- 2) The Village Programme
- 3) The Individual Programme

When discussing the decision-making, it might also be correct to look upon VAP as a whole, and consider who actually takes the main responsibility for the Programme policies.

Based on interviews with almost all VAP-staff concerned, GRZ-attached staff, quite a few ward chairmen and some farmers, the information in Chart No. 4 hopefully gives a correct picture of how the different programmes are decided upon.

From the interviews the following observations should be noted:

- 1) Some farmers seem to feel that they don't get their problems looked into.
- 2) One of the farmers indicated that the politicians seemed more concerned about political questions. Agricultural problems is supposed to be dealt with by the Extension staff of Department of Agriculture.
- 3) Among the local people (farmers) there is a generally uncertainty about which organizations at present take care of the local societies. Most of the farmers still refer to the village headman and the VPC.
- 4) Both the extension staff and the expatriate Area Co-ordinators seem to be of the opinion that the VPC still is the main body at grassroot level.
- 5) On the other hand, ward chairmen all over are very much in favour of the new set-up of Party Sections and Branches.
- 6) In Kayambi village it was noted that the VPC had been re-established after the organization of Sections. The reason seems to be that the village headmen were not simultaneously elected chairmen of the Sections.

According to the ward chairman, the VPC's in the villages concerned are now mainly dealing with Land Use questions.

- 7) In all part-programmes (Area, Village, Individual), the importance of active participation of the ward chairmen is emphasized.
- 8) Informal meetings between Agricultural Assistants, Area Co-ordinators and Ward Chairmen seem to play an important role in decision-making.
- 9) Almost all Ward Chairmen pointed out that both the projects within the Area Programme and the selection of the VAP-villages were discussed in the Ward Councils.
- 10) While some few of the Ward Chairmen indicated that they reported to the District Council about the capital projects implemented in the VAP-Areas, only one of the Agricultural Assistants was aware of the importance of involving the District Authorities from the very beginning.
- 11) None of the Area Co-ordinators indicated that any decisions is taken at District level either by DAO or other District Authorities.
- 12) It is, however, well known that both the VAP-Co-ordinator and the VAP-Committee are much concerned about how the District Administration might be more engaged in the implementation of the VAP-projects.
- 13) Although there should be no doubt that the VAP-Committee is intended to be the general council of the Programme, it is noted that everybody interviewed at area level, Area Co-ordinators included, seem to be of the opinion that the main body within the VAP-administration is the Evaluation Course. From the Chitoshi/Mpalapata VAP-Area there twice were indicated that the VAP-Co-ordinator decide about the capital projects within the Area Programme and which villages each year to be selected.
- 14) The VAP-Co-ordinator finds it regrettable that there previously has been difficult to conduct VAP-Committee meetings regularly due to the dependence on the PS as chairman. Even this year only one meeting has been conducted so far.

From different sources it was revealed that the District Governor in Mbala or his representative has never attended a VAP-Committee meeting.

In the last Committee meeting the Chairman turned down a proposal from the Assistant District Agricultural Officer in Mbala concerning expansion of the VAP-areas in that District.

Although there seems to have been conducted a "District VAP-meeting" concerning that topic, and minutes forwarded to the Permanent Secretary before the VAP-Committee meeting, the argument of the Chairman was that the extension staff was not considered to be representatives of the District Authorities.

The reluctance of the Mbala District Authorities to participate in the decisionmaking is quite undesirable looked upon both from the GRZ and the donors point of view.

In implementing the Village Programme and the Individual Programme, their participation and confirmation is not needed. However, when Capital projects (Area Programme) are to be implemented, the case is quite different.

With the new administrative system of decentralization it should be noted that the District Governor is not any longer subordinated the Permanent Secretary in the Province. . Consequently the present set-up of the VAP-Committee might need to be redesigned.

As indicated by the VAP-Coordinator in his analysis of December 1981, the result of a fruitful discussion within the VAP-Committee is entirely depending upon the Chairman. A detailed "Terms of Reference" for the Chairman and the Committee would therefore be desirable.

The general impression after looking into the matter of decisionmaking at the various levels of the Programmes is that most of the necessary information about the actual problems in the villages in one way or another finally reach the Management and the VAP-Committee.

However, one doubt might here be raised about the possibilities of the children and women to express their needs. At all levels the men dominate, and except for what has been pointed out by the NORAD Resurch Fellow and the female Area Co-ordinator hardly nobody from grass-root level has expressed the lack of input here.

In the Village Programme this is catered for by giving free fertilizer and seed for the first year also to all females in the selected villages. All collected information however shows that most women disappear from the lists first year and leave the production, and concequently the income of the production to the men.

Almost everybody conceive the Evaluation Course as the main deciding body of VAP. This might account for the general feeling of the people involved that they have a certain role to play concerning which capital projects should be implemented each year.

This feeling of common participation in final decisionmaking should not be underestimated. However, at the same time it is felt that requirements for administrative education both of staff, political representatives and participating farmers are needed.

Apparently VAP is well organized, and within the existing constraints, the management, the established committees and meetings are doing their best. As indicated above, everybody, except may be the target group, the rural population, and higher authorities in the District who ignore the whole set-up, find that decisionmaking in most cases goes from grass-root level to the final approving committees.

Through participation in The Evaluation Course they all feel they have an important role to play in the decisions to be taken.

The differendes in the answers from the farmers, agricultural staff ant the

party officials represented by the ward chairmen when interviewed, lead to the question whether the rural population really is participating fully in the decisionmaking within VAP.

The number of committees showed in Chart No. 1 and 2, participants listed and taken into account the limited amount of annual input, approx. Kw. 150.000, the impression is that the democracy is oversized without really gaining what could be the long term objectives.

Meetings at Provincial level is time (and fuel) consuming, they are difficult to organize and conduct efficiently. The return in terms of new insights about the Programme is probably overestimated.

Chart No. 2 shows a number of lines concerning information, reporting and forwarding of proposals.

Everybody is almost involved in everything, and little final decision-making takes place by the rural population for the rural population.

There is a need now for an analysis of the overall administration and management of VAP.

THE IMPACT OF VAP

3.1.

Give an outline and analysis of the result of VAP in the villages included in the project, specifying first, second and later years' performance.

The data should include information on the number of VAP-farmers
hectarages of fertilizer use

production volume of maize, beans, fingermillet and other products.

The Team is of the opinion that at present the available data do not give sufficient background information to discuss all the questions raised in the above paragraph of TOR. This pertains particularly to products other than maize.

Although the Baseline Report states that a report system, simplified and standardized, has been established, observations during visits to different Agricultural camps indicate that the report system is still a matter for discussion.

Few of the extension personell, being Zambian or expatriate fully saw the relevance of "making lists".

The shortcomings from the early years of VAP (up to 1980), are known and presented in the Baseline Report. Still then, there are in some quarters misunderstandings and low performances as to the relevance and reliability of the lists.

Without going into details, the 7 different lists now established to record production and land use in VAP villages from year 0 to year 3 might be a failure, if not great efforts are put into training of staff at all levels how to use the lists.

Taking into account all possible shortcomings in the available data so far, it might still be of interest to look at the general information which can be extracted.

The information from the 1st Year Villages is the most reliable. Concentrating only on maize-production, the intention in the following is to try to systemize and outline some data concerning villagers' participation in the programme. The discussions must be judged from the limitation of the back-ground material given. At present it is doubtful that any advanced analysis is possible to carry out.

With reference to the attached map and chart No. I - , table 1 gives a picture of how the implementation of the Village Programme have taken place in the different VAP-Areas from 1977 on.

Up to the agricultural year of 1981/82 14 villages were selected in Nondo/Senga Hill Area, 9 in Makasa/Kayambi Area and 4 in Mapalapata/Chitoshi Area. Figures in brackets give the number of people who has been subsidized in each village. It should be noticed that the number of participants are substantially smaller in Nondo/Senga Hill Area than in Makasa/Kayambi. On the average, in the first year villages in Nondo/Senga Hill about 50 people have received free inputs, in Makasa/Kayambi about 100 and in Mpalapata/Chitoshi approximately 80.

The consequences this might have had for the possibilities of extension staff to carry out sufficient extension services are discussed in a different part of the report.

In table 2 the total number of "1st Years Villagers" from 1977 to 1981/82, area by area, is compiled.

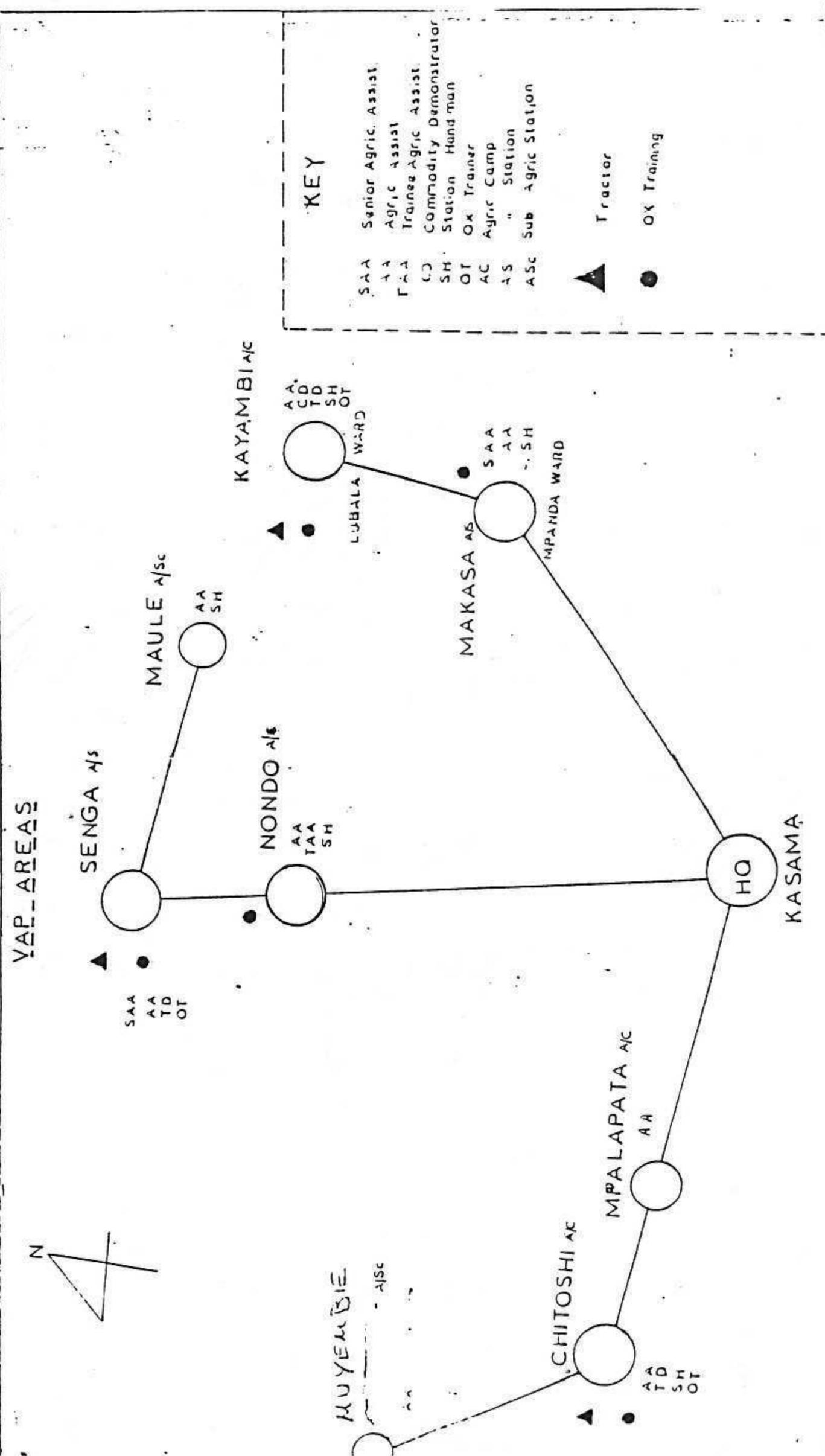


Table 1. Selected villages 1977-81. No. of farmers receiving subsidies ().

DISTRIKT	MBALA		KASAMA EAST		MPOROKOSO			
BLOCK	SENGA HILL		MAKASA		CHITOSHI			
YEAR/CAMP	NONDO	SENGA HILL	MAULE	MAKASA	KAYAMBI	MPALAPATA	CHITOSHI	KAEMBE
1977/78	1) John (29)	1) LUSALE (23)	1) MWINESANSO (57)	1) SHIKACHIMBA (44)				
	Chingalawa	2) KALUKANYA (30)						
1978/79	2) Mulenga (47)	3) MOSES (61)	2) MUTALE (138)	2) MUKALULA (50)				
	Chingalawa	4) MUKATULA (90)	MALEMBA					
1979/80	3) Nokole (49)	5) Pomboloka (N/A)*	3) CHISANGA (133)	3) MULENGA				
	Chifilwa	6) Benson Ch. (66)		MUSEBO (88)				
1980/81	4) Rubeni (47)	7) Songolo (N/A)**	4) MUTALE (238)	4) KAMINSA (119)	1) MANDONA			1) KAEMBE (45)
	Kangwa	8) Changala (66)	NAMUTIMBA		LUNSHI (60)			
1981/82	5) Peter (120)		1) MAULE (108)	5) CHANUNDU (95)	2) LAWRENCE (96)	1) JOHN (114)		
	KALOSA				MAMBILIMA	SHILA		

* (Later informed to be 60)

** (Later informed to be 107)

Table 2

Total number of farmers receiving free fertilizer and seed in 1st year VAP Villages.

CAMPS/AREA	77/78	78/79	79/80	80/81	81/82	
Nondo	29	47	49	49	120	294
Senga Hill	53	151	0*	121**	108	433
Makasa	57	138	133	238	0***	566
Kayambi	44	50	88	119	95	396
Chitoshi/Mpalapata	-	-	-	105	210	315
	183	386	270	632	533	2004

* (Later informed to be 125)

** Number of farmers in Songolo village stipulated to 55 (according to average hectarage/farmer 81/82, later informed to be 107, but first figures are used in analysis).

*** No information available concerning 1st year village Kasuba.

Although the figures might be unreliable, it is still possible to indicate that roughly 2000 villagers, school-leavers, female and male, have received free seed and fertilizer from VAP since the beginning in 1977.

Table 3

HECTARAGES PLANTED IN 1.YEARS VAP. VILLAGES.

CAMP/AREA	77/78	78/79	79/80	80/81	81/82	
Nondo	6	15	23	23	44,5	111,5
Senga Hill	19	65,5	51,5	48,8	64,4	249,2
Makasa	26,5	78,5	32,5	120,6	0	258,1
Kayambi	23	5	31	68,3	35,3	162,6
Chitoshi/Mpalapata	-	-	-	43	79	122,0
	74,5	164,-	138,-	303,7	223,2	903,4

Table 3 is showing hectarages planted in the 1st year villages. All together it comes up to approximately 900 hectares. No information is available whether this hectarage is new land cultivated or already permanent fields utilized.

On the average, each villager has received free input for 0,45 ha. According to the original plan for the Programme, the intention was to give free fertilizer for one introductory year to each household which has or prepares a permanent field of at least 0,5 ha.

Following discussions in 1979/80, the Evaluation Course, however, in 1980 "finally decided that any individual able and willing to dig up to 0,5 ha. was eligible to free fertilizer the first year".

Reasons behind this policy are enlightened in the Base-line report. (p. 20) Although accepting the explanation given, what might be indicated here is that undoubtedly in later years some households have received quite more free inputs than others due to their availability of manpower, being hired labour or not.

This leads to the assertion that the present subsidy-policy of VAP might create undesired effects within the selected villages. Although the intention was to give everybody an opportunity to generate funds for later investments, being clothes, bride-prizes or fertilizer, the unanticipated effect might have been that certain heads of households are generating considerably more than others due to the advantageous development cycle of their families (more workers than consumers).

From the team's point of view, there therefore might be advised that the socio-economic monitoring soonest should concentrate about multiple effects caused by the subsidy policy.

Possibly the whole policy of the Programme have to be taken under discussion, openly accepting that equal treatment of the target-group not at all will fulfill the scope in the AGREEMENT.

Table 4

Bags of fertilizer distributed free of charge to 1st year villages.

CAMPS/AREA	77/78	78/79	79/80	80/81	81/82	
Nondo	30/30	66/63	90/84	98/98	178/178	
Senga Hill	105/90	317/307	242/256	254/254	194/157	
Makasa	114/114	315/315*	300/190	460/344	** N.D.	
Kayambi	79/79	100/88	176/176	300/292	200/150	
Chitoshi/	-	-	-	175/175	374/226	
Mpalapata	<u>328/313</u>	<u>798/773</u>	<u>808/706</u>	<u>1287/1163</u>	<u>946/711</u>	<u>4167/3666</u>
Prize X	6,70	8,70	11,79	9,79	11,94	
per bag A/N	6,-	7,80	11,08	7,93	10,09	
Cost of X	2197,60	6942,60	9526,32	12599,73	11295,24	
Cost of A/N	1878,-	6029,40	7822,48	9222,59	7173,99	
	<u>4075,60</u>	<u>12972,-</u>	<u>17348,80</u>	<u>21822,32</u>	<u>18469,23</u>	<u>74.688,-</u>

* Estimated for Mutale Malamba according to Lima recommendation.

The total amount of free fertilizer given, (bags and costs) are outlined in table 4. Comparing the amount distributed against hectarages of maize planted, the use of about 3600 bags of Ammonium Nitrate as top dressing corresponds with the LIMA recommendation of 4 bags/ha.

The use of 16% more basal-dressing than required is not quite understood, the extension service may have to account for this. Bearing also in mind various difficulties to get the fertilizer distributed, and the possible use of X-compound for other crops, there seems not to be any reason to pay further attention to the subsidized fertilizer.

Although free seed is not to be found in the first Agreements about VAP, the policy have all the same existed and is also now included in Annex I attached to the present drafted AGREEMENT.

When trying to find the variable "VAP-cost" the input of seed is stipulated to Kw. 15.000. Up to the 1981/82 season, excluding all kinds of transport costs and interests, free inputs given to the villagers are therefore coming up to totally Kw. 90.000.

In table 5 are the produced bags of maize in the 1st year VAP villages recorded together with the anticipated profit if sold to NCU.

Table 5

Total yield of maize in 1st year VAP villages (in bags).

CAMP/AREA	77/78	78/79	79/80	80/81	81/82	Total
Nondo	120	126	320	497	933	1996
Senga Hill	384	441	655*	527	1253	3260
Makasa	554	785**	736	994	0 (?)	3060
Kayambi	572	96	598	1255	746	3267
Chitoshi/Mpalapata	-	-	-	644	1580*	2224
	1630	1448	2309	3917	4512	13.816
Price per bag	6,80	9,-	11,70	13,50	16,-	57,-/5=11,40
Total Kw.	11084,-	13032,-	27015,-	52879,-	72192,-	Kw. 176.202,-.

* 20 bags/ha. stipulated Pomboloka village

**18 bags/ha.

Thus estimating the income from sale of maize to Kw. 175.000, the GROSS MARGIN should be amounting to about Kw. 85.000.

As this is net profit to the "VAP-villages" in Northern Province it would have been of considerable interest to know the multiple effects of this amount of Kwacha in the local societies.

It should be mentioned that according to the above undertaken calculations, the average break-even yield in the years of 1977/78 to 1982 have been

approximately 8,5 bags/hectare. Taking into account the relatively higher rise in the prices of maize than fertilizer in the later years, the above average correspond with the statement in the Base-line report that production of less than 7,5 bags/ha. has not given any profit.

Table 6

Average yield (bags/ha) in 1st year villages.

CAMP/AREA	77/78	78/79	79/80	80/81	81/82		AVERAGE
Vondo	20,-	8,-	13,9	91,5	21	84,8	16,9
Benga Hill	20,2	6,7	12,7	10,8	19,5	69,9	14,-
Makasa	20,9	10,-	22,6	8,2	0?	61,7	15,4
Kayambi	24,9	19,2	19,3	18,4	21,1	102,9	20,6
Chitoshi/Mpalapata	-	-	-	15,-	20,-	35,-	17,5
	86,-	44,3	68,5	73,9	81,6	354,3	16,8
AVERAGE	21,5	11,1	17,1	14,8	16,3	808,-	<u>16,5</u>

Comparing the calculated break-even yield, with the data in Table 6 and bearing in mind that those figures might give some general information about average maize-production of hybrid maize in the VAP areas and years in question almost have been with 100% profit.

However, judging the output both in the 1st year subsidized village, and also in later years by subtracting the variable costs, the average gross profit is just Kw. 180, respectively Kw. 90 per head.

The question remains whether an amount of 100 to 200 Kwacha really gives sufficient incitement to repeat the experiment of "improved" maize cultivation year after year when sale of beans in the traditional way might bring in income of about Kw. 300,- from 0,3 hectare.

Trying to assess this a bit more in detail, one single example might be

taken from Mandona Lunshi Village, Chitoshi/Mpalapata Area 1980/81. (The case may not be quite relevant due to this being a "1st year village" but had to be chosen due to availability of data.)

The average yield was found to be 12,3 bags per hectare. According to the calculation given, the best farmer made 56 bags/ha. Dividing the producers in groups according to production above 26 bags, between 15 and 26, 7,5 and 15, and less the 7,5 per hectare (see Base-line report page 42), the compiled information from this village give the following results, (in table 7).

Table 7

Production of maize in Mandona Lunshi 1980/81.

GROUP	INDIVIDUALS		AVERAGE bags/ha	GROSS MARGIN KW/HA	
	No	%		subsidized	not subsidized
A >26	2	3,5	48,5	655	540
B 15-26	17	30	19	257	115
C 7,5-15	22	38,5	10	135	20
D 7,5	16	28	5	68	- 45
	57	100			

Being 1st year village, the sale of maize could have given the villagers of Mandona Lunshi a net income of total Kw. 5.143,50. However, only 209 bags amounting to Kw. 2.821,50 were sold, the rest was kept for home consumption.

The man with an average of 56 bags/ha was only cultivating 0,25 ha (1 Lima) which actually gives Kw. 189,- in cash, we indeed are back to the average income figures calculated above.

Out of 57 villagers, only 8 was cultivating as much as 1 hectare. Only one of those, belonging to group A, produced as much as 39 bags with a calculated

net income of Kw. 326,- (Gross margin Kw. 412,-). Out of the rest, only three were above the previous calculated average yield of 16,5 bags/ha.

Those had respectively 24 bags i.e. Kw. 324,-(GM Kw 210,-), 23 bags i.e. Kw. 310,- (GM 195,-) and 20 bags i.e. Kw. 270,- (GM Kw 155,-).

All the others, a total of 38, would have been producing with almost no profit or a loss if variable cost should have been paid.

Indeed, one question in the Base-line report page 33, deserves to be commented on:

"What are the opportunity cost by being totally involved in maize growing versus being involved in beans growing in citemene (swidden)?

What agro-economical adaption should farmers choose seen from their own opportunity situation"?

Looking into the time the socio-economic monitoring has been a part of the VAP Programme, it might not be expected, and are not asked for in TOR, that the Evaluation Team should come up with any conclusion here.

It is likely, however, to put a questionmark concerning future production of maize at the "Lima scale".

An indicator as to the villagers' interest for continuous maize-growing on permanent fields is to show how many producers who still are doing so 2nd and 3rd year in the "VAP-Village", how many hectares utilized, total and average production etc.

In his "Analysis of VAP, Present situation," Des. 1981, the Co-ordinator writes:

"If 40-50% of the initial applicants to subsidized fertilizer will remain as fairly well - to - do farmers the Programme should be very satisfied".

By systematizing the scarce and partly unreliable data year by year, table 8 has been made.

Table 8

% of farmers in 1st to 5th years VAP Villages.

AREA/CAMPS	1st	2nd	3rd	4th	5th
Nondo	100	53	48	72	65
Senga Hill	100	115	77	60	119
Makasa	100	51	26	28	24
Kayambi	100	79	27	17	11
Chitasha/Mpalapata	100	69	-	-	-
Mean	100	73	45	44	62

Excluding the percentage of the 5th year which at the present stage is unreliable, the VAP-Co-ordinator's claim should be fulfilled. Further conclusions should be avoided due to the uncertainty of the base material. With the same reservations in mind, even more interesting is to find whether the hectarages of permanent fields are stable or not.

Table 9

% of hectarage fertilized 1st to 5th year in VAP Villages.

AREA/CAMPS	1st	2nd	3rd	4th	5th
Nondo	100	79	98	108	166
Senga Hill	100	101	93	72	170
Makasa	100	135	103		64
Kayambi	100	141	51	32	22
Chitoshi/Mpalapata	100	102	-	-	-
Mean	100	112	86	76	111

If the trend in the figures in table 9 in the future can be verified, the impact of the VAP subsidy policy can be judged accordingly.

Being in the position that "The data from Nondo are reliable for the whole period, due to the able AA who worked there" (Base-line report p. 41), some diagrammes have been constructed to be compared with table 8 and 9.

The average results from Nondo are presented in graph A. The graphs are based on data from 6 villages in a six year period. Except for four missing figures concerning use of fertilizer, all other data needed are available.

As expected, there is a considerable boom in the 1st year villages concerning participants and total production of maize. Also the increase of hectarages are more than 100% compared to the year before.

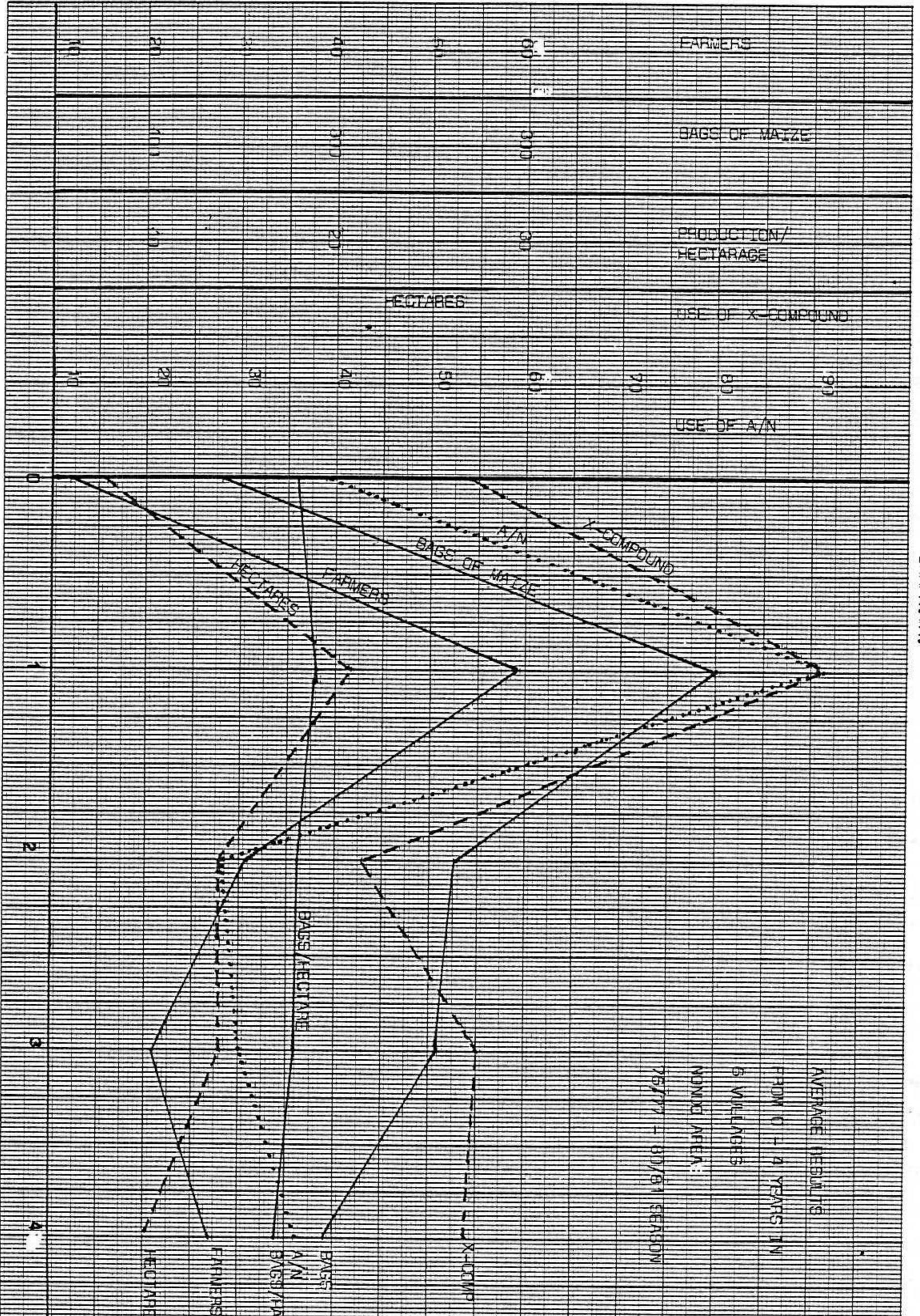
The unavoidable drop the second year includes all measured parameters except average yield. Here there are hardly any change from year 0 to year 4.

Due to too few samples, further interpretation of the graphs is not made at the present stage.

In table 10 are the development presented in percentage of year 1.

The figures here are not quite comparable with table 8 and 9.

Concerning participants in the 2nd and 3rd year villages, there is some corresponding tendency. Looking into the hectarages of permanent fields using fertilizer, however, it is anticipated that table 10 is more correct than table 9.



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Table 10

Average results in % from NONDO AREA 1976/77 - 1981/82.

Parameters/Year	0	1	2	3	4	5
Farmers	20	100	53	36	46	32
Hectarages	36	100	64	64	47	45
Mixture X	42	100	47	60	59	41
Amm. Nitrate	62	100	31	33	40	31
Total Yield	35	100	66	64	48	73
Average Yield	95	100	95	95	89	52

It would have been of interest to show the total production of maize in the VAP areas in the beginning of the 80's. The data from 1980/81 indicate more than 7000 bags. In 1982 the total amount will be approximately _____

bags. In the agricultural year 1981/82 1250 farmers have been maize-growers in the VAP-villages, including 1st to 5th year participants.

The production in Nondo/Senga Hill area have increased considerably. In Nondo from 1092 bags to 3096 bags and in Senga Hill from about 2000 to 5584.

The whole camp areas have produced 12.000 bags and the production in VAP-villages account for 8000 of these.

The conclusion of this paragraph is as mentioned before. If the monitoring and evaluation system outlined in annex II to the AGREEMENT is to be implemented, a serious discussion has to be held about how to accomplish this. Extension in terms of areas should not be done before a proper organization of this important issue, is done.

If this is not well organized from the very beginning, and also information from earlier years tried to be updated/verified, there will never in any Evaluation Report be possible to respond to the task:

"Give an outline and analysis of the result of VAP in the villages included in the project".

3.2. Discuss the deeper consequences for a farmer family wholly or partly leaving traditional citemene (swidden) in favour of permanent or "modern" cultivation by means of inputs provided through VAP.

Nutritional modifications

Lack of baseline and monitoring data of nutritional status in the VAP areas makes an evaluation of this aspect very difficult. The following is based on a nutritional screening of 5 VAP villages, discussions with VAP staff and various reports.

Household surveys focused on family income and distribution of income for the 3 areas are lacking. At best surveys covering one or two of these aspects from 1 or 2 areas can be found.

Good nutrition is closely correlated to a functioning subsistence production system. The common VAP farmer is a subsistence farmer, cultivating on citemene (swidden). The staples are fingermillet and cassava, supplemented with beans, groundnuts and vegetables.

VAP is introducing a cashcrop production system on permanent fields. Hybrid maize is the dominant crop. Capital is needed to buy fertilizer and seeds. Following the screening, there is a striking difference in nutritional status between the villages. A very high rate of malnutrition was found in 3 villages, where the range of underweight children was 45-59%. The lowest rate of malnutrition, 19%, was found in a village selected for season 82/83. (Muyembe).

The difference of malnutrition between villages and areas is here considered as a function of the extent to which a traditional subsistence production system has deteriorated in the 3 areas. It is further argued that the citemene production system, which is mainly for subsistence, is the keyfactor for VAP's success of introducing cashcrops:

Where citemene is successful, cashcropping of maize can provide an additional

source of income and food. The family can improve their standard of living, including nutrition.

men take over the cashcrop production, and women remain partly in the subsistence sphere as long as citemene is continued.

where production on citemene is not working due to ecological constraints and cassava has become the main staple, malnutrition is more acute. When VAP subsidy policies are introduced here, two things might happen with the households faced with the new options.

1. Depending on the family development cycle (workers vs. consumers) and other factors like motivation and knowledge they can substitute food and cash from the deteriorating citemene system, which will remain as a small additional production (particularly fingermillet).

2. Due to too few workers vs. consumers (Development cycle), other households might reduce or give up the citemene production and rely partly or wholly on the VAP option. This is a precarious situation. Poor management, weather conditions, marketing etc. might lead to deterioration of the nutrition situation, since surplus maize is mostly sold to generate cash for new production.

What villagers within a deteriorated citemene production system need, is a new production system for subsistence (if such can be found outside the new agricultural production systems like permanent fields using capital inputs).

A household being within a deteriorated citemene/cifwani system, simultaneously having little own labour, is therefore likely to fall back to a situation where agricultural products and staple food is mainly cassava. This category of households is likely to fall into the most malnourished category of the villagers in the area discussed here.

The interesting question is "How many are they"? When VAP take all families under consideration during the crop season before selection, they could, during the monitoring process give an answer to that question.

The other extreme, the "progressive" farmers, have already a substantial cashcrop-production, may it be beans from cifwani, from permanent fields or hybrid maize.

The "progressive farmers" will benefit from all VAP programmes, from infrastructure to individual programmes like fishponds, irrigated gardens for vegetables and oxprogramme (85% of the budget for the individual programme 1982). Some of the farmers from the middle group belongs to this category. The reasons why some farmers fall into this category is further discussed later in the Report.

More attention and support should, however, be given to the "drop-outs", to help them solve their nutritional problems as well.

To reach the overall objective VAP has to consider two main points.

1. Agricultural production must if possible be modified to include a suitable production system for subsistence crops, as well as cash crops. It is suggested to put more emphasis on the traditional crops, like fingermillet and beans, and how they can be grown on permanent fields, with alternative methods less dependant on cash inputs.

It is also suggested to narrow the gap between foodcrops and cashcrops through substituting hybrid maize for improved local varieties of maize. The dependency on hybrid seeds would consequently decrease as well as the need for cash to buy the seed.

2. Extension of VAP to other sectors than agriculture. Nutrition and health and the establishment of Multipurpose Cooperative Societies have to get far more attention than previously.

The village nutrition classes outlined in the Agreement, could act as an

important tool to strengthen the "participatory model of VAP" at the village level.

The nutritional knowledge about VAP areas needs to be increased. "What are the food and feeding problems felt by the villagers"? Nutrition education focused on the dietary needs of children, would be fruitful when education in the villages is coupled with production.

This village approach would enable VAP to include poor families as well as men, in the initial discussions.

The village nutrition classes could eventually act as foundation for more specific groupings, for example Womens Club, recruitment of women to Multipurpose Cooperative Societies or fund raising projects if and when such can be found. Nutrition monitoring to evaluate the effects of 1. and 2. is therefore important.

It is suggested that each Rural Health Center in the VAP areas makes out a plan with VAP of certain villages to visit in their catchment area.

The plan should have the double objectives to provide primary health care and at the same time provide VAP with monitoring data on nutritional status among children below 5 years of age.

It is further recommended one expatriate nutritionist for VAP, to coordinate and plan the suggested nutrition programme.

Training of extension staff from Dep. of Agriculture and Community Development is necessary, for implementation of this programme is needed.

In order to possibly limit the need of an expatriate nutritionist to a period of two years, it is extremely important to get a Zambian counterpart from the very start. The counterpart should have a NRDC Diploma and be a woman.

In the Zambian context only a woman can approach women in sensitive matters, and matters considered purely female related.

Current nutritional status in VAP selected villages.

We have no baseline information about nutritional status among children in VAP selected villages, apart from a "spotchecking" screening done during the evaluation mission. We are not able to draw any far reaching conclusions on these data. But the data provide some interesting information that has to be confirmed or rejected when a more comprehensive data collection is carried out, as part of the VAP planning and monitoring procedure.

General findings (see table 1)

Of 217 children from 5 villages in VAP areas, 36% were underweight. 20% of the children aged 1-4.9 years were acute undernourished. The average data are included for comparative reasons. The number of underweight children is basically the same as have been found in the plateau areas in Eastern province during last years. But the number of acute undernourished children seems to be higher. Mildly underweight children (70-79% W/A, Jelliffe standard) do more reflect a state of chronic undernutrition or growth retardation, than a state of acute wastage of muscles found in an acute underfed situation.

The number of underweight and acute underfed children correlates in the villages, which indicates that underweights are reflecting growth retardation not a natural small stature. This can also be seen from table 2, where babies fed on breastmilk up to 6 months, are growing rapidly, and show a low rate of underweights. But when additional foods have to be introduced from that age, the number of underweight children increase rapidly.

Children between the age of 1-3 years show the highest rate of acute underfed individuals. These agegroups are considered as the most vulnerable to poor feeding, see table 3.

Too early introduction of weaning foods (porridge) in the first months of life can give a high incidence of diarrhoea, due to contamination of the food, with

a subsequent risk of the child to become malnourished.

Too late introduction of additional foods besides breastmilk at the 1 year when the child is able to start with family food directly, will of course result in a severely undernourished child.

The findings from the screening are partly biased, probably many women answered the same as the woman before them did. But the common age to introduce weaning foods seems to be 3-5 months.

But the deviations are more interesting. In two villages the weaning starts very early.

Some children are fed on the staplefood, nshima, as first food, and they are in general older compared to the common age when porridge is introduced. (See table 4).

Table 5 correlates age when weaning foods were introduced to acute underfed children. But the sample is far too small to make any conclusions. Both early and late weaning is represented.

The social-economic factors behind the weaning food pattern, are probably more decisive to the present state of malnutrition.

Specific findings.

The difference of incidences in malnutrition between the villages are striking, and probably between VAP areas as well. If this is a tendency that will prove to be true, it is even more important to have base line information, in order to be able to evaluate the nutritional impact of VAP.

The following table is presented as a "bad" example, how data can be used when information is lacking.

Rate of malnutrition 1982, related to VAP village selection year.

<u>Selection year</u>	<u>% underweight</u>	<u>% MUAC \leq 13 cm</u>	(Middle upper arm circumference).
78/79	45	25	
79/80	59	40	
79/80	45	35	
80/81	30	13	
81/82	-	-	
82/83	19	6	(Data from table 1).

The inherent logic from the table is: "the longer VAP has operated in a village, the worse the nutritional status in that village".

This is certainly not the case.

But the data reflects two important things. First of all, the selection criterias may have changed. Former "more poor" villages were selected, which also had a high rate of malnutrition. When the self help criterias became dominant in the selection-procedure, "less poor" villages with less nutritional problems are selected. The "poor" villages have to wait until the end of VAP operations in that area, or they have to become active to get a higher priority at the selection.

Secondly, the relatively poor performance of VAP until 1980, could not substantially improve the living conditions for the majority of the families, in these problem areas (Kayambi/Makasa). After 1980, there are probably few households where VAP has had any important influence. In fact, it could eventually be showed that "poor" villages and "poor" areas can be traced back to a dysfunct production system, and the difficulties VAP face here to develop the villages, in a lack of a new alternative production system for subsistence, as discussed earlier.

At present we have not sufficient data to confirm these speculations.

But it must be concluded that nutrition monitoring of all "strata" in the village is essential when evaluating the nutritional effects of the VAP programme. It is essential to know how many families out of the total, where VAP has a negligible effect on nutrition.

Additional nutrition information.

At the health centers in the three areas it was told that early kwashiorkor or manifest kwashiorkor with oedema leading to a nutritional disorder, was common.

Two Medical assistants saw no improvement the last years, one said that the worst problems was found in the periurban area.

The Provincial Nutrition Co-ordinator had the impression that the nutrition situation in the rural areas was improving, but deteriorating in the urban areas.

The hospital record in the VAP area Kayambi, was looked into to see if any tendency to improvement could be traced.

Also these data should be carefully interpreted, in the absence of more comprehensive data.

The data show a significant decrease in the number of kwashiorkor and other cases of malnutrition. But the number of cases with malnutrition as primary diagnosis is still high.

Kayambi Mission Hospital records of malnutrition.

Primary cause of admittance	Sept. 78/ Oct. 79	Sept. 81/ Oct. 82
Total number of patients	1,852	1,895
Number of kwashiorkor	110	60
(Marasmic-kwashiorkor)	(16)	(8)
Number of "malnutrition"	113	60
kwash/total no.	5.9	3.2
<u>kwash + malnutr.per total no.</u>	<u>12.0</u>	<u>6.3</u>

(with permission from sister in charge)

Very few of the malnourished children came from VAP selected villages. Before systematic "mapping" of the villages from the records, is done, it is impossible to tell if there is less malnutrition in VAP selected villages, than in surrounding villages, or if the villages are represented according to distance and access to the hospital.

Anemia resulting from malaria and poor nutrition is very frequent in all areas, especially in Kayambi/Makasa.

Baseline nutritional status of children 0-4.9 years in VAP areas oct. 1982

No. Area	Village	Selec. Year	Estimated* Total No. Below 5 years of total	% Measured	No. Meas.	No. Underweight 0-4.9 years	% .	No. MUAC \leq 13 cm	% \leq 13 cm	
										1-4.9 years
1.	Makasa	Chisanga	79/80	90	32	29	13	45	5/16	31
2.	"	M. Malamba	78/79	102	43	44	20	45	7/26	27
3.	"	M. Namutimba	80/81	110	34	37	11	30	3/23	13
4.	Senga Hill	Pomboloka Kapoli	79/80	39	95	37	22	59	12/30	40
5.	Chitoshi	Muyembe	82/83	82**	85	70	13	19	3/52	6
TOTAL			AVERAGE	423	51	217	79	36	30/147	20

* 1) No. of men selec. year x 1.4 women = no. of adults.

2) Estimate 0-14 years as 57% of total population.

3) 1) + 2) 20% as est. no. of children 0-4.9 years.

** Based on census taken before screening, probably a bit overestimated.

Table 2

Number underweight children by age

No.	Village	MONTHS OLD					Total	
		0-5	6-11	12-23	24-35	36-47		48-59
1.	Chisanga	1	3	4	2	-	3	13
2.	M.Malamba	1	6	5	3	2	3	20
3.	M.Namutimba	1	3	4	2	-	3	11
4.	Pomboloka	0	2	12	5	2	1	22
5.	Muyembe	2*	1	4	1	4	1	13

No. underfed of agegroup

5/38 15/33 29/57 11/33 8/34 11/22 79/217

% of agegroup 13 45 51 33 23 50 Average 36 all agegroups

* twins

Table 3

Number presently underfed children, MUAC 13 cm by age

No.	Village	MONTHS					Total	
		0-5	6-11	12-23	24-35	36-47		48-59
1.	Chisanga			4	1	-	-	5
2.	M.Malamba	NOT APPLICABLE		4	3	-	-	7
3.	M.Namutimba			3	-	-	-	3
4.	Pomboloka			8	3	1	-	12
5.	Muyembe			2	-	1	-	3

Total

21 7 2 2 0 30/147

Underfed as % of agegroup

37 21 6 0

Average, all agegroups 20%

Age when weaningfoods were introduced, porridge or nshima, screening Oct. 1982

Village	not yet	MONTHS OLD											Nshima straight		
		1	2	3	4	5	6	7	8	Don't know	one	6 months			
1. Chisanga	4	-	1	7	10	5	1	-	-	-	-	-	-	one	6 months
2. M.Malamba	5	3	3	5	10	10	2	-	-	-	-	-	5	"	10 "
3. M.Namutimba	5	-	10	7	-	2	7	1	1	1	1	1	1	"	6 "
														"	12 "
														"	16 "
4. Pomboloka	1	8	8	7	3	6	1	-	-	-	-	0	0	twins	3 "
														one	12 "
5. Muyembe	1	1	-	-	24	5	6	-	-	-	-	31*	31*	"	4 "
														"	7 "

Results from village 1. probably biased, due to presence of w/C leader

Results from village 5. biased, too much influence woman to woman, many don't know answers, if known probably a wider range of answers.

* 1st day no data collected, 11 did not know when asked.

Table 5

MUAC \leq 13 cm related age when weaningfoods were introduced, village 1 and 5 excluded

No.	Village	Not Yet	MONTHS OLD						Total
			1	2	3	4	5	6	
2.	M.Malamba	one 10 months	-	-	-	-	6	-	7
3.	M.Namutimba	" 16 "	-	-	-	-	-	2	3
4.	Pomboloka*	-	2	4	3	2	1	-	12

* 5 of 12 children had presently abdominal pain and or diarrhea or fever.

One pair of twins, both underfed, given only nshima once a day.

One of the twins had clear signs of kwashiorkor. The mother, a pieceworker, had 6 children altogether. She got fertilizer the selection year, but has no fields now.

citimene a subsistence production system.

The citimene/cifwani production system is normally an efficient system to cover the subsistence needs of the family, as well as to produce a surplus for sale. But it only works where the ecologic preconditions are favourable, in terms of woodland and a low population.

It is a safe production system, if the social network of obligations and distribution of tasks is intact. However, due to the large migrations of male labour to towns, the Copperbelt and line of rail the safety of the system has not been guaranteed for a long time back.

The women are food producers and have the right to decide over the allocation of food crops. They are primarily responsible to feed their children. However, the planning of production and allocation of resources are made complex by the fact that individual ownership to the crop is rather questionable.

The production aims to provide sufficient food for the family throughout the year.

Food.

Ingermillet and cassava are the staplefoods supplemented with beans, groundnuts and vegetables (green leaves from cassava, beans, pumpkins etc.) and seasonally gathered food as caterpillars and mushrooms.

Some fresh fish is consumed during dry season. but in general, fish is considered as too expensive to constitute any important part of the diet.

Consumption of meat, eggs and milk is negligible.

The staplefood provides about 75-80% of the total energy intake, as well as the major part of the protein intake. The cereal is the major component of the nshima (stiff porridge). Nshima should be served 2-3 times a day, but is more commonly served 1-2 times a day, and only once, especially under the peaks of the farming season.

The traditional diet provides, under optimal conditions, a wellbalanced food,

at least for adults.

Breastfeeding is continued up to 1.5-2 years, provided the woman does not become pregnant.

Nutrition

1970/71 the National Nutritional Status and Food Consumption survey found that the most serious nutritional problem in Northern province, was a deficiency in energy, indicating a lack of food. In the agegroup 0-4 years, 60% of the children were underweight, about 8% were severely underweight.

Changes within the production system

There are at least two important factors leading to a worse nutritional status.

1. A change in staplefood production from fingermillet to an emphasis on cassava as the major staplefood. The low protein content (1-2%) makes cassava unsuitable as food for children, especially when there is a lack of supplementing foods of animal origin, and the children are only fed 1-2 times a day.
2. When cash has to be generated from a production system, primarily aimed for subsistence. Cash is needed to pay school fees/uniforms, transport, local medicine, salt, paraffin among other things. There is a danger that local cash crops like beans and groundnuts not being real surplus, but needed for the family's consumption, are still sold or bartered. A change from legumes towards vegetables is then to be expected. Vegetables are nutritionally valuable but not sufficient to supplement the staple in the childrens food. Traders in beans also take advantage of the households' isolated position and the local barter of legumes against commodities are always unfavourable for the household. (300-400% higher prizes).

The new production system

A change from citemene/cifwani to a permanent field production system should first of all safeguard the subsistence needs of the family. Only surplus production

should be regarded as cashcrops. A cereal is preferred as staplecrop, but a variety of "relishcrops" are needed to supplement the staple. Availability of other supplementing food like fish and meat, to improve the diet would be of benefit for the household.

The VAP production system and VAP inputs

A new field production system is encouraged. Fields are prepared near the village contrary to citemene which are found 5-6 km and more away from the village. Cultivation of predominantly hybrid maize using inputs of fertilizer/seeds is stressed. Since production of hybrid maize is a cash intensive and also "foreign" in these areas, and presumably thought of as a "mens domain", hybrid maize is regarded as a cash crop, first of all, not as a new subsistence crop. A certain amount of maize is however kept for home consumption in VAP villages. Relishcrops so far has not been taken into consideration. For the time being beans are widely grown on cifwani, and there has not been need to stress beans production on permanent fields.

Advice for construction and stocking of fishponds, cockerel exchange, selling of vegetable seeds and seedlings of coffee and orange trees are all subprogrammes that are not directed towards certain households but are carried out under the slogan "first come, first served". Presumably the impact of the VAP individual programmes is limited so far to households in a better position, which due to available labour are able to take advantage of the offer. Under the prevalent conditions, the permanent field production system is not a complete system, which can take over from the old subsistence system. It is therefore as yet not a real alternative. Permanent fields can, however, act as a cashcrop system along with a successful citemene system for subsistence.

nutritional consequences of permanent field production

Where the women can keep the food production on citemene, and men produce

hybrid maize for sale, the nutritional standard as well as the standard of living will possibly improve.

The allocation of the cash income is a social-economic question which the family entirely decide about, may it be nonproductive consumers goods or additional supplementing food. It is not known whether the responsibility to provide good food to the children will become a shared responsibility between man and wife, or remain with the wife alone.

If the cashcrop fails due to internal or external circumstances, there should still be food to feed from.

When the cashcrop production has become large enough to compete with citemene for labour, the citemene production is likely to diminish. The family will then become more dependant and more vulnerable towards external influences, like marketing, subsidy policies, availability of inputs. These external factors will to a large extent decide how much maize will be left for home consumption, more than the need of food in the family. However, there will always be grown cassava which can supplement as staple, during crises.

In some VAP areas, notably Senga Hill and Makasa, many families will continue with citemene that will gradually deteriorate, and retain fingermillet for beer and cassava for food.

Of course the other category of successful citemenefarmers also exist, where citemene is more profitable (beans) than permanent fields with hybrid maize. They will have little motivation to change the production system fully.

A further discussion of the deeper consequences of VAP

The VAP strategy is designed to reach every individual who is able to cultivate a permanent field in the selected villages, and it does reach almost everybody. However, only a varying percentage of the farmers increase their permanent fields and continue to use improved seeds and fertilizer the following years. But who are they? Are they the already emerging progressive farmers who would have succeeded even without VAP? Does VAP only reach an existing elite within the selected villages?

Based on field-work from the areas, it is reasonable to assume that in the very egalitarian and homogeneous societies selected for VAP inputs, the above are not the crucial criteria for who the future progressive farmers will be. There is reason to believe that a major decisive factor as to what groups will benefit most from the VAP input has to do with the family's or group's stage in the domestic development cycle at the time of VAP selection. For example, a married couple will for about the ten first years be in a rather precarious situation, having only two adults (whereof one is often pregnant) to feed themselves and a number of small children. They will have a negative balance between producers and consumers, whereas a household consisting of two adults and several older children will have a positive balance in this respect. We must bear in mind that labour is one of the major constraints to increase production for hoe agriculturalists.

Thus, there is reason to believe that VAP does not, in most villages, reach an already established social group, being better off as to economic, educational or politic resources. This will, however, vary, depending on the village. When situated near the camps or main roads, the villages will often be more heterogeneous.

It is believed that in properly rural villages the crucial criterium for which households will become progressive farmers over time, has to do with

their stage in the domestic development cycle. It is not believed that any development programme, however ingeniously designed, can lead to equal benefit for all individuals in a total population. Thus, if VAP can only help, in the initial stages at least, a certain percentage of the population in selected villages to become progressive farmers, this should not concern us unduly. If a progressive farmer is defined as a person using fertilizer on permanent fields to increase production of crops for consumption and sale, this is, and should be, the hoped for consequences of this development programme. This is in accord with the official policy of the Zambian government.

A critical issue is not only who, but how many villagers are willing and able to follow up the new production system in the years after VAP selection. This is not only a criterium by which the adequacy of the Programme must be judged, but it is important that they are not too few because this might lead to witchcraft accusations and the disruptive effects of these on social cohesion in a village. As will be seen from the Development Charts in the Baseline Report, there is always a reduction in the number of farmers using fertilizer on permanent fields after the year of selection, but the number is usually high enough to prevent witch-craft accusations. There are, however, two notorious exceptions, i.e. Shikashimba and Mukatula villages, remaining with 5 out of 44 and 3 out of 50 farmers respectively. This is not only a sad result of VAP inputs, but also a dangerously small number, and we know that Mukatula is especially witch-craft ridden. In the absence of in-depth information and data on these villages, it would be speculative to insinuate that there is cause and effect between VAP and witch-craft accusations, but based on knowledge gained from studies in other VAP villages, one would expect a relationship between very limited numbers of successful individuals and witch-craft accusations.

As we have seen from the above, the creation of progressive farmers should be considered desirable, and the fact that not all traditional farmers can take this step at the same time should be considered as unavoidable. The expected consequences of this is that there will be an increasing socioeconomic levelling between the households which can utilise the VAP inputs and those who can not. This outcome should be acceptable because it is unavoidable, for the reasons mentioned above. What should not be acceptable is:

- a) That an improved standard of living (assuming that this is a consequence of the development programme) for one section of the village population should lead to a deterioration in standard of living for another section. This is unacceptable because their survival before the programme inputs are introduced is very marginal. (Ref. the nutrition status.)
- b) That the group, or some of the group, of emerging progressive farmers manage to monopolize scarce resources, especially land and labour, to a degree that threatens future possibilities for improvement for the section of the population who presently continues to use only the traditional production system.

It is the possible consequences mentioned in these two points with which TOR is concerned in paragraph 3.2. It is the lack of baseline and follow-up data on these issues which has led to some of the main recommendations in the present report i.e. that resources must be allocated in order to extend, follow up and continuously evaluate research data on the deeper effects of the programme, before the possible and unintended consequences mentioned above have become irreversible.

In this connection it is suggested that the tribal Chiefs in the VAP areas be briefed and consulted regularly on the socio-economic aspects of the new land usage. Not only is their knowledge about land and allocation

of land invaluable to an agricultural programme, but since the programme takes place on tribal land, a close co-operation with the Chiefs may stem some of the possible negative effects in connection with privatization or monopolization.

Reverting to the question of the expected increasing differentiation between various groups of the population, two brief discussions with a bearing on various points under 3.2 will be brought up.

i) The distribution of work and burdens between men, women and children will probably change, with the introduction of a new agricultural system. As has been pointed out in most reports from this part of Africa, the work-load of women is very heavy. There is no reason to assume that with the introduction of the specific new agricultural system this work-load will be reduced. On the contrary, we have to expect that the situation of women will be negatively affected by "modernization" on the level introduced by VAP. An increase of permanent fields will lead to an increase in tasks traditionally female, especially weeding. This task demands more labour on permanent fields than on the traditional citemene fields. In addition, experience has proved that when cash inputs of a certain magnitude are introduced in agricultural systems, the position of women is often changed. From being a fairly independent producer, she becomes an unpaid agricultural labourer for her husband or father. We have few data from VAP areas yet, but what may be an indication that this process has started can be found in the Baseline Report. When VAP is introduced in a selected village, the applicants for free seeds and fertilizer are usually about 40% female and 60% male. In villages in Chitoshi and Mpalapata, however, there is only 18% female applicants. A possible reason for this may be that in this area a much larger percentage of farmers had used fertilizer (cash input) before the introduction of VAP. Town influences gained through more extensive and longer lasting

migrations seem to be stronger in these villages than in most of the other VAP villages (Eriksen 1981). Whatever the reason for the above rather significant differences in female application, we should expect independent female participation in agriculture to diminish over time, both in VAP areas and elsewhere, as part of the "modernization" process. Although regrettable, it seems at present impossible to put forward any real solutions to this anticipated problem.

One part measure has already been suggested, namely the educational nutrition, primary health and family planning classes which hopefully will be one step in the direction of partly preventing the women's and children's life situations from becoming worse. Another suggestion, which will have a direct function in reducing the women's work-load, is the suggested separate Water Programme within VAP, to in order to more efficiently provide closer and safer sources of water for domestic use. The provision of rural water supply is, however, a tricky project and not only technical, but also sociologic feasibility studies, planning and follow-up are required.

ii) If the argument that a major factor, deciding which households can avail themselves to lasting advantage of the VAP inputs, is the stage reached in the domestic development cycle, there are two possible conclusions. One is that this selecting factor is acceptable, that a certain proportion of the households is reached and helped, and that these examples may have a positive influence over the rest of the households over time. Another possible conclusion, which has not been discussed with the other members of the evaluation team, will not therefore be put forward as a recommendation, but as a suggestion for future discussions. The tentative proposal is to provide the VAP inputs twice to each selected village. This should have two obvious positive effects:

i) If the offer was repeated after a span of about 7 years from the first

selection, a possibly major part of the "left behinds" might be caught up in the Programme. Many of those who had a negative balance of consumers versus producers the initial year, will have reached a more optimal stage. Also, some of the more timid farmers might be willing to make an effort the second time, since there are examples of farmers in their village who have been successful in the new mode of production. The effects of VAP and the Lima Programme may now persuade the left behinds to participate fully. During the first years of free VAP inputs, many farmers were suspicious that they would somehow be forced to repay these.

b) In most educational contexts it has been proved that relearning or repetition is invaluable for effective learning.

The effects of repeated learning would not only apply to the farmers, but to the extension personnel as well. Also, the bad performance of VAP during periods of the first years of the Programme, due to the many constraints mentioned elsewhere in this report, indicates that a repetition might be called for. According to some Minutes from VAP Committee meetings and some of the reports, a few of the selected villages are not better off, or even worse off than before VAP selection.

It is easy to forecast some opposition to the above suggestion, one of the reactions being that VAP farmers have been offered an opportunity better than most already, and that therefore VAP, if extended, must reach new areas and new farmers. The argument is valid, but only partly so. The Agreement states that the aim of the Programme is to increase agricultural production and thereby to improve the standard of living for the target group. Data indicate that there is an increase in production, but we have no systematic data to indicate whether the standard of living has improved, deteriorated or remained unaltered. Even if we take the most positive view, that since there is an increase in production there must be an improvement

in the standard of living, we should not feel that since we have done something, this must be good enough. The results of the nutrition survey performed in connection with the present evaluation report is proof enough that a lot of work remains to be done. The underlying reasons for the main five recommendations further corroborates this statement.

VAP's continued presence is demanded in order to:

- a) Assure the villages continued service from the national marketing and other organizations.
- b) To evaluate the various part-programmes' ability to improve the population's standard of living and to minimize possible negative consequences of the Programme.
- c) To assist in creating interest organizations on several levels, enabling the farmers to learn about and utilize their lawful rights as Zambian Citizens. The ability to form and run interest organisations is a major protecting factor to their vulnerability as they become increasingly integrated into a national market system. The Multipurpose co-operative Societies discussed elsewhere in the report, might be one such institution.
- d) And not least, to try to ensure steady growth by stimulating interest and providing means for economic investment (Whether this in future be hybrid maize or not). There is reason to believe that cash from surplus crops, as during the year of VAP selection and as experienced in 1982 because of a bumper harvest, will be invested to a certain extent in not very productive sectors, such as:
 - i) Clothes, soaps, oil and status-giving consumer goods.
 - ii) Education of children, which is one of the priorities of investment in the region. This should be seen as productive in the long run, but 1-2 years' schooling, as a result of a rare bumper harvest, is maybe not.
 - iii) Brideprice payment, which is a big expenditure.

Thus, the possible extension of VAP or elements of VAP to other areas must by no means hinder or take precedence over an extension and concentration of the Programme within the already established VAP areas.

3.3. THE PROGRAMMES ADEQUACY IN IMPROVING THE LIFE SITUATION OF RURAL POPULATIONS.

When discussing the deeper consequences of the various development inputs of VAP, we should bear in mind that:

I The Zambian government has a tremendous task on hand, trying to make the country economically viable in spite of the fluctuating and low prices of copper which represents about 80% of her export. The main sector for seeking economic growth is agriculture. Development programmes continuously have to interact and adept to changing national policy decisions. Three such national policy decisions have had a major influence in constituting the framework within which VAP and other agricultural development programmes are working. Without going into detail, it should be pointed out that most such national policies have been designed for good reasons, but although they usually obtain some major positive effects, there may be some negative side effects.

- a) It is a national policy to regroup villages in locations that can more easily be reached - in order to provide services like extension, education and health facilities to rural populations.
- b) It is a national policy to forbid the traditional citemene (swidden) agricultural system - in order to stem the increasing deforestation.
- c) It is a national policy to introduce and push the cultivation of commercial crops, especially of hybrid maize, through the Lima Programme - in order to make the nation self-sufficient in staple foods.

These decisions constitute some of the macro conditions for agricultural development projects in the country. It is not surprising, therefore, that VAP's main policy have been to improve extension services and to provide hybrid maize seeds and fertilizer for permanent fields.

Some of the inevitable negative consequences of major policy

decisions can probably not be avoided, whereas others can. One experience gained, by the government and VAP personnel alike, is that hybrid maize may not be the most suitable crop for large parts of Northern Province and some VAP areas. This fact, however, does not imply that the Lima Programme and VAP are failures. It only implies that further tinkering with the programme is necessary. When the present report in various paragraphs suggests that for instance beans production on fifwani be encouraged for dietary and other reasons, this must be considered as a small amendment in the policy. The suggestion is contradictory to the national aim of forbidding citemene cultivation (unless fifwani are considered as permanent or semi-permanent fields). The suggestion is, however, in accordance with the agricultural system observed in the province.

When the evaluation report implicitly expresses concern that a large proportion of the target group makes a rather small profit by using cash inputs like fertilizer and improved seeds, this must be understood as a request for continued research and ongoing evaluation in order to possibly find new variations of input. Under the prevailing circumstances, i.e. within the framework of the national policy decisions mentioned above, an increasing number of farmers within regrouped and permanent villages will gradually have to depend on semi-permanent or permanent fields if the traditional swidden cultivation is forbidden. The prevalent soils in many VAP areas require high management in order that the carrying capacity be maintained. Two main approaches will be either green manuring or fertilizing. Green manuring is labour intensive, and as has been pointed out in literature concerned with increasing production for hoe agriculturalists, labour is a scarce resource. Fertilizer is cash intensive (seen from the point of view of the traditional farmer), and this will be a limiting factor for part of the VAP target group.

Any development programme should adjust to the socio-economic and other constraints and opportunities on the micro and macro level. If a programme obtains some improvement for part of its target group, without causing a deterioration in the standard of living for a significant other part of the same group, and if the improvements develop into a process of self-sustained growth, then the programme must be judged a success.

II When discussing the adequacy of the VAP strategy, we should bear in mind that the desired effect is some change in comparison to the small farmers' present situation. The Agreement states that the desired change will take place through helping them to increase production and thereby to improve their standard of living. Obviously, there is no one to one relationship between these two factors. Nevertheless, one should not criticize the diffuse wording of the Agreement on this point, since it gives scope for rethinking, adjusting and tinkering with the Programme over time, according to insight gained and changing conditions. The Agreement between the two governments does not state what indicators should be used in order to measure improvements in the standard of living for the people concerned. This is not necessarily a weakness, since the Terms of Reference for the convened at regular evaluations of the Programme can, and in the present case does, imply a set of indicators, as stated in TOR, paragraph 3.2. As has been stated previously, the evaluation team in 1982 has too few data on which to base an evaluation on these issues. The fact that the issues have been raised, however, gives scope for a strong recommendation that resources be allocated in future for the collection and evaluation of such data. Due to a variety of factors such as lack of personnel, intermittent lack of funds, a sometimes low level of job performance, security problems etc., there is a lack of baseline studies and there was no proper report system. The actual implementation of the

programme has, rightly or wrongly, been given precedence over the collection of qualitative data on the various issues under paragraph 3.2 and 3.3.

If the Programme can be tinkered with as experience is gained, and if the target group is involved in the planning, design and adjustments of the Programme, this may to a certain extent guarantee that the objectives of the Programme will be adequate for improving the rural populations' life situation.

As has been pointed out under several headings in the present evaluation report, the Programme looks very different now from the maybe ill defined plans of 1976. Likewise, the increase in opportunities for the target group itself to participate in decisionmaking and to put forward suggestions for improvement has now been institutionalized in the Programme. These two facts are in themselves impressive seen in the development aid context.

3.4. Discuss the Adequacy of the VAP strategy compared to an integrated rural development approach.

The Northern Province Integrated Rural Development Programme is interesting since there are two such programmes there. They are usually referred to as Kasama IRDP and Mpika IRDP. The two have got different approaches when it comes to implementation of projects and integration into the existing local structure.

IRDP based in Kasama was started in 1973/74 in 3 areas as a IDZ (Intensive Development Zone) programme. The IDZ concept was, however, changed to an Integrated Rural Development Programme financed by SIDA. IRDP Kasama like VAP is now, works rather independently outside of the existing government institutions and it carries out its own plans and implementation. The areas in which the programme currently operates are:

- Mambwe area (4 agricultural camps)
- Nakonde " "-
- Chambeshi flats area "-
- Chilubi - new area from 1982.

After SIDA started supporting the programme activities expanded rapidly. Agricultural activities expanded and new, mainly social development activities were introduced.

As the programme grew there was also a corresponding further detachment from the existing government structure.

IRDP activities include:

- subsidizing farmers with inputs.
- provision of transport facilities and housing for extension staff.
- organization of field days for the farmers.
- improvement of roads and bridges.

- construction of night paddocks and diptanks.
- provision of medicine and veterinary equipment.
- oxtraining.
- vocational training (Misamfu)
- provincial workshop -"-
- water supply.

New activities

- community development
- Women's Clubs.
- support for school production units.
- fish farming.
- primary Multipurpose co-operative societies.

The greatest difference between IRDP Kasama and IRDP Mpika is mainly:

- 1) Kasama IRDP makes it's own plans and conduct the implementation of them.

The planning and implementation of IRDP Mpika activities is done by the District Councils guided by the original development plan for the area (Mpika, Chinsali and Serenje districts), prepared by a consulting firm in 1980/81.

- 2) Contrary to earlier when the IDZ strategy was used, IRDP Kasama is now expanding into poorly developed areas. This has led to the expansion to Chilubi island District. IRDP Mpika still use the IDZ approach. Priority is given to areas which seem to have a higher economic rate of return. Areas which already have a development potential in terms of good roads, storing facilities and extension services are chosen.

The main reason behind the differences in the two different IRDP strategies is that IRDP Kasama funds are donated while IRDP Mpika funds are loans.

- 3) Hence the target groups of the two IRDP's are different, with IRDP Kasama

concentrating more on the poorer part of the rural population.

The above short discussion hopefully makes it clear that an "Integrated Rural Development Approach" has different meanings. The IRDP North Western Province apply even third strategy.

However, in order to compare the VAP strategy with the IRDP strategies, certain factors should be isolated.

1. Staff

Both IRDP's are based on larger expatriate headquarter staff than VAP. This enables IRDP to supervise and follow up the projects in the areas. IRDP Kasama has (or should have, October 1982) 7 expatriate staff members:

Co-ordinator

Economist/Planner

Animal Husbandry Officer

Crop "- "-

Building Supervisor

Mechanic At Misamfed Workshop

Blacksmith

IRDP Mpika has 8 staffmembers:

1 Co-ordinator

3 Agronomists responsible for a district each

1 Mechanic

3 Other (Logistics/Accounts/Executive Off.)

In the rural areas both IRDP's use Zambian staff as Area Co-ordinators and/or extension personell.

VAP has 1 expatriate staff in Kasama (Co-ordinator).

In the rural areas there are supposed to be 3 expatriate Area Co-ordinators.

In the Team's opinion the IRDP's, particularly Kasama, are more efficient running activities in the rural areas which need inputs in the form of materials and specialist advice.

On the other hand, the local knowledge and daily contacts with the local population of the resident VAP Area Co-ordinators are invaluable. Zambian Camp staff has not as yet the same opportunity to push newly identified projects.

2. Finance

Discussing only IRDP Kasama and VAP and excluding the salaries of expatriate staff, IRDP is a more fund consuming programme.

In 1979/80 VAP had a budget in the range of Kw. 100.000 whild IRDP had Kw. 500.000. In 1982 it was 180.000 and near to 1.000.000. respectively. VAP had over the years reached well over 2.000 farmers and their families, directly, the number reached by IRDP is not known.

Following the amount of budgeted funds, there are also differences. The inputs and level of technology are quite high in the case of IRDP.

A motorized grader and a number of vehicles enable IRDP to construct good feeder roads in the areas and transport building material, agricultural inputs and the like out.

The quality of the self help roads and the lack of a lorry for 2 years makes VAP less efficient in this respect.

The question remains, however, whether the maintenance of the capital projects will be better carried out in IRDP, Kasama or VAP in the future.

IRDP Mpika is in a different position when these problems are concerned, since all implementation is carried out through the District Councils.

3. Integration

In other parts of this report it has been pointed out the increasing independence of VAP from the GRZ government structures. IRDP Kasama is and has always been in the same situation. When now planning to phase out of Mbala District (Mwambwe area), IRDP Kasama is envisaging a problem of maintenance of roads, bridges and other constructions supposed to be taken over by the

District Council. VAP is likely to be in the same situation when the time for phasing out comes if no measures for taking over responsibilities are introduced.

IDP Mpika might probably avoid such problems, since the planning and implementation of capital projects are done by the District Councils from the very beginning. It is the Team's recommendation that VAP take up this strategy as part of a plan to re-integrate the programme in the GRZ system. Details pertaining to this issue is discussed elsewhere in the present Report.

3.5. IS VAP AN ALTERNATIVE FOR AGRICULTURAL DEVELOPMENT. AND IS IT DESIRABLE TO EXTEND THE PROJECT CONSIDERABLY?

The Programme's failures are often more visible and dramatic than its positive effects. Its quantitative positive effects are smaller than anticipated in the 1970ies, when there was undue optimism, not only as to expected results of development aid programmes in the third world, but also as to the amount of prefeasibility studies, planning, time and other resources necessary for investment in them. VAP is no exception in this connection. VAP is an exception on some issues, though:

- 1) It started out as a very different project from what it has become. No baseline studies were performed, and it seems that knowledge about the ethnic groups of the area did not greatly influence the way in which inputs were to be distributed. However, the Programme has adjusted, and it has not changed and adapted to circumstances through sound, but maybe rash and unconventional decisions taken by field personnel. The procedure has taken place in co-operation with the relevant Zambian and Norwegian administrations. When serious enough problems to threaten failure have arisen, this has been discussed and sorted out between the field staff and the administrations in Kasama, Lusaka and Oslo. Although there is room for improvement, this positive aspect of the Programme should not be disregarded.
- The Programme does reach its target group, or at least sections of its target group, namely some of the poorest people in a developing country.
- 3) Due to the experience and insight gained over the years, a very negligible percentage of the development funds is wasted through corruption, misuse or inefficiency.
 - 4) There was, maybe in many quarters, an undue optimism concerning the suitability of hybrid maize. This and fertilizer being the main VAP inputs,

great stress is, naturally, put on these factors during evaluations of VAP. The last few years have shown an increase in hectarage, number of farmers, fertilizer used and production, also after the VAP selection year. The improvement is not dramatic, but these are not the only quantifiable effects connected with the Programme.

The ox-programme seems to come into effect.

There is great interest in rain-fed coffee which seems to be a suitable cash crop.

A large number of fish-ponds have been constructed and stocked.

The breed of chicken is slowly improving through the exchange of hybrid cockerels for bush ones.

The two latter inputs have lead to an increased resource of proteins in the area. This can be stated safely, although we do not know how the possible cash or the actual protein foods are allocated locally or within the household.

- 5) The small-scale programmes do not in themselves demand a very high degree of skill or management on the village level, causing them to fold if and when VAP withdraws.

It is believed that VAP is becoming fairly adjusted, as a Programme, to the inputs it is meant to bring, as to its form of approach to the target group, as to its inherent ability to adept to new insight gained. It is, however, stressed in the present evaluation report that we know very little about the deeper consequences of the Programme. An assessment of whether it is desirable to extend the Programme substantially can therefore not be built on scientific data. This is regrettable, and has led to some main recommendations in the present report. Since, however, one of the positive features of the Programme over the years has been the administrations' ability to comply with requests of documented necessities,

there is reason to assume that steps will be taken by the administrations to correct the present weakness. In a few years' time there will thus be a scientific basis on which to make the requested assessment.

In the meantime, it should be fairly safe to say that VAP certainly is an alternative for agricultural development in various parts of Zambia. If one is to judge whether it is a better or worse alternative than the many other agricultural development schemes, undertaken by various organisations in the country, one should have access to fairly standardised evaluations of them. No such performance has been initiated. It would seem fruitful that an inter-national, or at least an inter-Scandinavian effort be undertaken in this connection. Not only would one be able to choose among better known alternatives when an escalation of development aid within a discrete sector was considered, but a pool of information on negative and positive consequences of various development policies would become available.

There is a distinct feeling that each separate development scheme over the years has to go through a process of trial and error - and worse, that nobody outside the projects should be informed and thereby learn from the errors. This process of trial and error is costly for the donor countries and can in extreme cases directly harm major groups in the receiving countries. Although every scheme works under partly specific conditions, and has to modify according to these, an effort at inter-scheme, inter-scientific and standardized evaluation procedures should uncover a pool of more general and invaluable information. This could and should fill the missing link in the co-operation and fruitful discussion between the development organizations engaged in the same field.

Such a basis of reference points would also have a positive effect on the work-load of changing administrations. Apart from the position of Permanent Secretary in Northern Province, most of the relevant Zambian

administrators have been connected with VAP over a long period. There is, however, less continuity in the NORAD administration. It is unfortunate that the contracts of Resident Representatives and Assistant Resident Representatives usually are of a duration of only 2-3 years. This must hamper the smooth running of the programmes for which they are responsible, and it seems a sad waste of human resources and emerging expertise. The administration of some development schemes in NORAD, Oslo, is marred by a constant turn-over and change of personnel.

The views expressed here about VAP as an alternative for agricultural development, are also valid as to whether it should be extended substantially. There is, however, one additional factor to consider in this context. It is believed that one of the positive aspects of VAP is that it has adjusted fairly well to local conditions within a nation, i.e. with regard to the various requirements of different ethnic groups, the special ecologic conditions of the area, and a marketing and transport system partly at variance with other provinces in Zambia. If the Programme was greatly extended, the local administration might lose its flexibility and ability to handle and understand local complexity. It is probable that the maximum size of the Programme at any time should not exceed 3-4 Districts for the above reason, and in order that communication between the Programme areas should not become too cumbersome.

This would entail that if VAP is to be considerably expanded, it should be by replications of the Programme rather than by extension.

Annex I

Terms of reference for the evaluation of ZAM 012 - Village Agricultural Programme (VAP)

I. Background

The Village Agricultural Programme (VAP) was initially planned as a traditional settlement scheme. During the planning period, however, the concept was changed and is now based on the existing village structure. The main elements of the programme are assistance to the village population in the form of advice on agricultural practices, subsidies for production unputs and technical and financial assistense for improvement of infrastructure in the project areas.

The project agreement was signed in 1979. Through an annex to the agreement, added in 1981, it was stated that an evaluation shall be carried out after approximately three years of project activities. This evaluation should also be seen in the light of a proposed extension of the VAP area, and NORAD plans to increase agricultural assistance to the Northern Province in general.

II. Participants, mode work

Mr. K. Changa, Acting Chief Farm Management Officer, Lusaka

Ms. M. Jørstad, Social Anthropologist, Norway

Mr. S. Muchindu, Economist, MAWD.

Mr. C.I. Storøy, Provincial Land Use Planning Officer, Eastern Province

Ms. L. Bergdahl Thalén, Nutritionist, Sweden

Mr. E. Eriksen, Rural Sociologist (Co-ordinator)

As long as VAP has existed, evaluation data concerning the development of the project have been collected. The need for in-depth field observations may consequently be less than what normally is the case in NORAD evaluations. In addition, some of the team members know the project and the VAP villages from before. Their need for fresh field observations is therefore even more limited, and in the case of M. Jørstad, a field visit does not seem to be necessary.

After the termination of the field work, which is supposed to be of a duration of two - three weeks, the reporting may to some extent be carried out in a decentralized manner among the team members, on the basis of tasks distributed. But the Co-ordinator will be responsible for the maintenance of necessary liaison among the team members.

It is emphasized that the Co-ordinator, having been quite closely related to the implementation of the project, should to the extent possible leave the actual assessments of the project to the remaining team members.

III. Tasks of the evaluation team

1. The strategy of the Village Agricultural Programme

The evaluation team shall:

- 1.1 Describe the development of the VAP strategy as it has been modified during the project's existence, also giving the reasons for the modifications.
- 1.2 Discuss the relative importance of factors constraining the successful implementation of VAP, and how they have been or may be overcome.
- 1.3 Discuss the use of different agricultural inputs in VAP, and their relative importance.
- 1.4 Assess the performance of the extension service provided through VAP, by Zambian as well as by expatriate personnel. Particular attention should be paid to:
 - collaboration and distribution of tasks between Project Co-ordinator, expatriate volunteers and Zambian staff members,
 - extension staff's collaboration with village authorities and extension staff from other sectorial departments,
 - capacity to follow up the project in second and third year VAP villages,
 - ability to treat subjects other than the purely agricultural ones, (water development, forestry, artisanal activities, cooperative unions etc)

1.5 Assess the relevance of the monitoring and evaluation system applied in VAP, and particularly of participatory evaluation through the use of evaluation seminars.

2. VAP and the Zambian Agricultural Administration

The evaluation team shall:

2.1 Assess positive and negative consequences of VAP's increasing administrative and financial independence of the Zambian governmental and parastatal system.

2.2 Discuss the present and future role of the expatriate and Zambian personnel at all levels of the VAP administration.

2.3 Discuss the participation in decisionmaking at the various levels in the programme.

3. The Impact of VAP

The evaluation team shall:

3.1 Give an outline and analysis of the results of VAP in the villages included in the project, specifying first, second and later years' performance.

The data should include information on the number of VAP farmers, hectarage of fertilizer use, production volume of maize, beans, fingermillet and other products.

3.2 Discuss the deeper consequences for a farmer family wholly or partly leaving traditional citemene (swidden) cultivation in favour of permanent and "modern" cultivation by means of inputs provided through VAP.

The discussion should focus on such factors as:

- nutritional modifications (relationship between nutritional needs and cash incomes).
- family income, in cash and kind,
- social organization, distribution of work and burdens between men, women and children,
- socio-cultural aspects of relevance for the family and the village,
- consequences for the settlement patterns and the ecological balance,

- assumed long-term effects of the increasing integration into a market system,
- consequences for socio-economic levelling between rich and poor households,
- the concept of a "progressive farmer", and if the creation of such a farmer is desirable.

3.3 In the light of the above discussion, the explicit and implicit objectives of the Village Agricultural Programme and their adequacy for improving the life situation of the rural population in the affected area.

3.4 Discuss the adequacy of the VAP strategy compared to an integrated rural development approach.

3.5 Assess to what extent VAP, or elements of VAP, may be considered as an alternative for agricultural development in the Northern Province and/or Zambia at large, and whether it is desirable to extend the project substantially.

IV. Reporting

After the termination of the field visit, the team is expected to reach the main conclusions of the evaluation before it splits up.

Subsequently, each team member will be entrusted with the writing of specific parts of the report, on the basis of the distribution of tasks that the team agrees upon. The Co-ordinator is responsible for assuring that the final report will be an expression of the views of the team as a whole, and will, in understanding with NORAD, take the necessary steps in terms of consultation for achieving this.

The Co-ordinator will be responsible for submitting the final report to NORAD before 1st January, 1983.

Nils Vogt
Ass. Dir. General

Annex II

PROGRAM VAP EVALUATION TEAM

15th October - 14th November

- October 15 Travel to Kasama, half the Evaluation Team
(Messr. Changa, Eriksen, Muchindu)
- 16 - 18 Reading background reports
- 19 Talks with P.A.O, P.E.O.,
VAP Co-ordinator, Acting IRDP Co-ordinator
Arrival rest of Evaluation Team
(Mr. Starøy, Ms. Thalén)
- 20 Visit to Nondo. Agricultural, Medical, Community Develop-
ment Staff and Farmers interviewed
Talks with Chief Nondo
Visits to Rubeni Kangwa and John Chigalawa
VAP villages
- 21 - 24 Visits to Kayambi/Makasa agricultural camp/station and
VAP areas
Talks with Agricultural Staff, Ward Chairmen and Farmers
Visits to Mulenga Musebo and Chanundu
VAP villages at Kayambi
Visits and nutritional surveys of
Mutale Malamba
Chisanga and Mutale Namutimba
VAP villages at Makasa
- 25 Team meeting at Kasama
- 28 Visits to Mpalapata and Chitoshi/Muyembe
agricultural camps/station
Talks with Agricultural, Medical and Community Development Staff.,

Talks with Ward Chairmen and Farmers

Visits to Kaembe and Mandona Lunshi VAP villages

Nutritional survey of Muyembe VAP villages

28 - 30

Visit to Senga Hill Agricultural Station

Talks with Agricultural and Community Development Staff
at Senga Hill

Visit to Moses VAP village

Visit and nutritional survey of Pomboloka VAP village

31 October - 3 November Team meetings at Kasama

Visits to Mungwi and Mbala

District Agricultural Offices

Visit to Mbala Hospital

4 November Part of the team travels to Lusaka

(Ms. Jørstad, Messrs Changa, Eriksen, Muchindu)

5 November Rest of the team to Lusaka

Ms. Thalén, Mr. Storøy

14 November Discussions and first draft writings in Lusaka.

Annex III

PEOPLE SEEN AND INTERVIEWED

Kasamba/Mbala/Mungwi

Mr. Mwale	Acting Provincial Agricultural Officer
Mr. Nganbi	Senior Executive Officer
Mr. Ertzgaard	VAP Co-ordinator
Mr. Patel	Provincial Crop Husbandry Officer
Mr. Mtambo	Acting District Agricultural Officer
	Kasama East
Mr. Mulenga	Administrative Secretary, Kasama
Mr. Simpasa	District Agricultural Officer, Mbala
Mr. Mwenya	Assistant District Agricultural Officer, Mbala
Mr. Chilandu	Provincial Nutrition Co-ordinator, Kasama
Mr. Msimuko	Health Education Officer, Kasama
Ms. Mulenga	Home Economics Officer, Kasama
Mr. Svads	Soil Productivity Project, Misamfu
Mr. Tveitnes	Soil Productivity Project, Misamfu
Mr. Vikan	Soil Surveyor, NP/L.P.

At Kayambi/Makasa

Mr. Hauger	Area Co-ordinator Kayambi/Makasa
Ms. Li	Area Co-ordinator Kayambi/Makasa
Mr. Mwenya	Agricultural Assistant, Kayambi
Mr.	Agricultural Assistant, Makasa
Mr.	Senior Agricultural Assistant, Makasa
Mr. Peleti	Ward Chairman, Makasa
Mr. Petch	Ward Chairman, Makasa

Mr. Kuntu	Ward Chairman, Kayambi
Ms. Maureen	Nurse in Charge, Kayambi Mission Hospital
Mr. Mbasela	Ox Farmer, Shibalwela village

At Mpalapata/Chitoshi/Muyembe

Mr. Mtumbo	Senior Agricultural Assistant, Chitoshi
Mr. Mwinga	Agricultural Assistant, Mpalapata
Mr. Shishitu	Agricultural Assistant, Muyembe
Mr. Chapoloko	Commodity Demonstrator, Chitoshi
Mr. Kaita	Community Development Assistant, Chitoshi
Mr. Kafwimbi	Medical Assistant, Chitoshi
Mr. Chongo	Ward Chairman, Muyembe
Mr. Chitalu	Ward Chairman, Lubushi
Mr. Chaikola	Ward Vice Chairman, Chitoshi

At Nondo/Senga Hill

Chief Nondo	Nondo
Mr. Spigseth	Area Co-ordinator
Mr. Pengele	Senior Agricultural Assistant, Senga Hill
Mr. Sichiwesa	Agricultural Assistant, Nondo
Mr. Mpundu	Commodity Demonstrator, Nondo
Mr.	Community Development Assistant, Nondo
Ms. Chisanga	Community Organizer, Nondo
Mr. Mwansa	Medical Assistant, Nondo
Mr. Sikaunde	Health Assistant, Nondo
Mr. Kasonde	Community Development Assistant, Senga Hill
Mr. Nondo	Manager, Chisanya Multi-Purpose Society, Nondo

Annex IV

Primary Health Care and Nutrition monitoring.

Recommendation

To establish a mobile Under 5 Clinic with each health center in VAP areas, in agreement with provincial and district Ministry of Health authorities.

Objectives

1. To strengthen Primary Health Care activities in VAP areas by providing better health service, primarily for children below 5 years.
2. To follow up the rehabilitation of previously sick and malnourished children in VAP areas.
3. To follow up the growthrate of all children below 5 years, in the same selected villages, by use of the weight/age or "Road- to Health" chart, (and Midupperarm circumference). The charts can serve the double purpose, of follow up the individual child and provide monitoring data on nutritional status. The same forms as will be used by the National Nutrition Surveillance Programme, is suggested to be used. (Northern Province belongs to the pilot programme).

Suggested VAP responsibility:

- To employ one nutritionist for planning, coordination and supervision of monitoring nutritional status.

Responsibilities of the nutritionist:

- To compile all data collected and report to VAP Headquarter.
- To decide which villages to visit, and to perform the preparatory work of a complete census of all families living in the village. The census should be comparable with production and other lists compiled by agricultural staff.

- To provide necessary equipment like lists, Road-to-Health charts and scales. (Cooperation with Ministry of Health, Lusaka).
- To provide necessary transport. If needed help to transport drugs from the hospital depot to the Rural Health Center.

Suggested Health center responsibility.

- To be prepared to keep the mobile clinic, minimum twice monthly during dry season.
- To provide the necessary staff able to carry out health care. (Either Med. Ass. or Nurse). Include Community Health Worker when applicable.
- To provide the drugs.
- To produce a morbidity record from each visit, and ante-natal records agreed upon.
- To arrange time for next visit, and secure that information reaches the target-group.

Suggested village responsibility.

- To provide a suitable building for the purpose, in order to perform health care and collect data in a private manner.
- To draw attention to the visit to ensure that mothers with children below 5 years can participate and do attend.

Number of villages to visit.

4 villages per health center. Each to be visited at least 4 times a year.

Each village to be followed by VAP year 0 and for 4 consecutive years.

Total number villages 1983, 16 and with planned expansion 4 1986 an estimated 40 villages will have been included (-allowance for one "old" area).

According to interest reference villages can be included in the sample.

Annex V

CASH INCOME FROM HYBRID MAIZE/CITIMENE

Cash income from sales of H/maize (Ruben Kangwa 81/82) Kwacha

Sex	No.	1-24	25-49	50-99	100-249	250-499	500-999	1000
M	31	-	4	6	12	6	3	-
F	3	-	1	2	-	-	-	-
T	34	-	5	8	12	6	3	-

Rubeni was selected 80/81. In the second VAP year, 67% grew and sold H/maize. 9 women grew F/millet on permanent fields. 86% of the maize was sold. Low participation of women in the cashcrop production. Successful citimene.

Cash income from sale of maize (Pomboloka 81/82) Kwacha

Sex	No.	1-24	25-49	50-99	100-249	250-499	500-999	1000
M	20	-	2	1	10	5	1	1
F	10	-	4	4	2	-	-	-
T	30	-	6	5	12	5	1	1

Pomboloka was selected 79/80. In the third VAP year, 45% grew H/maize, 35% sold some maize. 17 of 32 women on the production list did not grow maize but subsistence crops. On the average, 60% of the maize produced was sold. Women (11) sold 50% (two sold nothing) of the maize bags, a few retained all bags. (5-6 bags).

Cash income from sale of H/maize and beans (Pomboloka 81/82) Kwacha

<u>Sex</u>	<u>No.</u>	<u>1-24</u>	<u>25-49</u>	<u>50-99</u>	<u>100-249</u>	<u>250-499</u>	<u>500-999</u>	<u>1000</u>
M	42	11	3	5	12	5	4	2
F	24	6	6	5	7	-	-	-
T	66	17	9	10	19	5	4	2

The number of farmers with cash income is doubled as is participation of women. The number of farmers with incomes over KW. 500 has increased from 2 to 6, but only selling beans. Half the village population have an income less than KW. 100 from both citimene and maize.

